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Creating spaces of shared citizenship and social control: Redefining invisible borders through urban design interventions in Las Independencias, San Javier, Medellín

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Creating spaces of shared citizenship and social control: Redefining invisible borders through urban design interventions in Las Independencias, San Javier, Medellín

by

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Dedication

To my parents, Lynn & Lewis,

who have always supported my intellectual and personal pursuits

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Abstract

Creating spaces of shared citizenship and social control: Redefining invisible borders through urban design interventions in Las Independencias, San Javier, Medellín

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Medellín, a city once plagued by violence, has recently become a global model for more equitable urban planning and urban design practice. Initiated during the mayoral administration of Sergio Fajardo (2004-2007), a progressive planning tool known as the Integrated Urban Project (PUI) guides physical design interventions in the urban peripheries where historic state absence had led to extreme levels of violence and socio-economic inequities. Collectively denoted as social urbanism, these new institutional and mobility projects seek to disrupt the existing geographies of violence, referred to by local residents as invisible borders (*fronteras invisibles*), while newly created public spaces aim to promote a culture of shared citizenship (*cultura ciudadanía*) between neighborhood residents.

Given the state's intent to shape and exert control over the socio-spatial relationships of residents within contexts of urban informality, this thesis seeks to

contextualize the planning and design of new public spaces within the everyday lived experiences of neighborhood residents by presenting a case study along the public escalator system in the neighborhood sector of Las Independencias, San Javier. Based on a “quasi” design ethnography research methodology, including researcher observations and local resident interviews, the thesis provides a detailed description of physical and social characteristics of new urban common spaces.

The public escalator system was designed to disrupt existing geographies of violence by creating new spatial connections and an institutional presence in Las Independencias. However, this mobility infrastructure also erodes the social vibrancy of the stairway, a dynamic social space within contexts of urban informality. By supporting only unidirectional movement (up or down) and removing the stairway’s potential for residents to gather, the escalators generate a pass-through space by design. Furthermore, the design favors social gathering in highly controlled public platforms between escalator segments, limiting the potential uses of these spaces to what the state deems acceptable and desirable. Ultimately, the design and surveillance of the public escalator system paradoxically works to provide residents with enhanced mobility, accessibility and socio-economic opportunities while simultaneously strengthening the state’s institutional presence in the sector, limiting the potential to reflect embedded local cultural values and practices.

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Chapter 1: Introduction

BACKGROUND AND PURPOSE

The rapid urbanization of Latin America, driven predominantly by rural to urban migration in the mid-20th century, resulted in highly precarious settlement patterns for the city's most vulnerable residents along city fringes and in areas of severe topographical constraints. These settlements emerged so rapidly that much if not all of their development fell outside of the state planning apparatus, resulting in large populations residing in contested urban territories with no permanent land titles, public infrastructure, or coordinated planning and growth strategies. In Colombia, this pattern was exacerbated by insecurity brought about by guerrilla warfare in the countryside. The complexity of these recently settled geographies quickly became a stronghold and place of refuge for warring opposition forces, with various non-state groups vying for power and control of their own territories. This violence continued through the beginning of the 21st century, ultimately ending in violent clashes with the national military that left many families broken and grieving.

It was in this environment of violence, insecurity, marginalization, and abject poverty that Colombia sought to restructure the policies and governance structures used to address informal urbanization trends. One of the first major steps in addressing these challenges was implementing the democratic election of mayors in Colombia in the late 1980s, beginning a tradition of local representation which was able to more effectively respond to local planning issues and concerns. The second major step was the

establishment of a new Colombian constitution in 1991, which in part introduced a new spatial planning process and urban design framework which sought to address the roots of these problems. In the city of Medellín, this new urban vision was articulated through several different policy tools. The regional *Planes de Ordenamiento Territorial* (POTs) served as the base for directing future change and growth in major metropolitan areas. Sub-area plans, known as *Planes Parciales*, were also drafted and implemented in accordance with these POTs, including a neighborhood improvement program entitled PRIMED. While successful in executing critical infrastructure projects, low community buy-in for projects and a lack of universal housing upgrades under PRIMED led the local government to create and implement a second iteration of sub-area planning known as Urban Integrated Plans, or *Planes Urbanos Integrales* (PUIs). The first PUIs addressed regions of Medellín identified by City staff as most in need. These neighborhood-based planning efforts elevated the level and influence of community participation, introducing large-scale urban interventions in an effort to enhance mobility and access to public space and social services.

These plans resulted in the reintegration of the urban peripheries by reconnecting these neighborhoods to a regional mass transit system (through the Metro system of light rail, cable cars, and integrated bus routes), providing the majority of households with increased mobility and access to services and employment. New public spaces developed around these Metro stations, including the addition of Parque-Bibliotecas in certain neighborhoods, introducing safe spaces for recreation, social exchange, educational endeavors, and social service provision to previously underserviced areas. Another PUI

project redeveloped the Juan Bobo creekshed by relocating residents in a vulnerable environmental area into new, adjacent housing developments, thereby reducing social risk and enhancing the environmental quality of the creek.

While these recent planning and design interventions have positively impacted the quality of life for local residents, many of the issues facing these communities stem from prolonged state absence and political marginalization. In other words, these projects have been reactive, rather than proactive, in responding to contexts of informality. Furthermore, the traditional planning apparatus lacks sufficient understanding of how planning and design interventions impact informally-established communities or precariously situated geographic areas when compared to more formally planned and regulated areas of the city. The histories and traditions of many immigrants from the countryside differ greatly from the colonial and capitalistic traditions embedded in the state planning apparatus and the city. For instance, close relationships between humans and local ecologies continue to be symbolically maintained through family garden plots, and economic exchanges rely more heavily on close-knit social networks rather than a global marketplace. Further research is needed to better understand how planning could and should adjust its practices to strengthen, rather than inhibit, such distinct processes underway in informal settlements.

The purpose of this study is to better understand the social, economic and environmental impacts of these planning efforts on existing residents as articulated through the planning process as well as via the spatial design and materiality of

implemented projects. Within this context I attempt to answer the primary research question:

- *What have been the physical and socio-spatial impacts of state-led planning and urban design interventions and how do they relate to the ways in which residents appropriate and claim urban common space in the neighborhood of Las Independencias, San Javier?*

In order to effectively answer this overarching question, I also ask several sub-questions which more explicitly address the socio-political context and physical characteristics of these newly introduced spaces. The first question examines the links between the formal planning process and its ultimate outcomes as demonstrated through the production of material space and the articulation of embedded values through the expression of built forms. The second sub-question attempts to qualify the differences in these newly created spaces with existing spaces of similar typological character in other parts of the city. These questions are:

- *How do novel material and spatial relationships resulting from state-led planning and design interventions in San Javier reflect the state's direct intent to exert social control?*
- *How have physical planning and design interventions in San Javier influenced the socio-spatial relationships between residents and their urban common spaces, and alternately, how have these novel socio-spatial relationships impacted the character and identity of these spaces?*

THEORETICAL FRAMEWORK

I focus the research around theories of informal public space, integrating literature on both resident- and expert-led urban planning and urban design practice. Few scholarly texts attempt to qualify how public space (in particular) is first produced and later socially constructed within contexts of informality (i.e. outside the formal urban planning apparatus). The literature shows that existing studies of informality often choose to focus on design as a purely aesthetic endeavor, or address only the social behavior of residents in informality, failing to integrate both ideas simultaneously.

While Gehl's (2011) study of the social life of public spaces gives us beautiful insight into how formal public space produces and is produced by social interactions, I argue that residents behave distinctly in informal public spaces versus more traditional, formal urban public space. Therefore, Gehl's contributions can serve as a firm base from which to record observations in the context of informality but should be expected to vary significantly across the range of conditions of informality. As such, it is necessary to pay more thoughtful attention to the details of informal public space through careful observation. To further add to the complexity of these communities, many of the informal settlements in Medellín consist of a hybrid urban landscape containing both formal and informal public spaces. This presents questions about how residents respond to different spatial typologies, since the majority of these residents have been exclusively socialized and accustomed to interactions framed within purely informal public spaces. It is in this academic landscape which I present my own theoretical framework.

First, I broadly frame the research in terms of the material and experiential qualities of space. I draw on Low's (1996) notion that space is first materially *produced* and subsequently socially *constructed* to evoke function and meaning. In order to provide critical commentary, it is first necessary to situate the role of the planner, designer, and builder within the physical dimension of inhabitable space. Literature on power dynamics, citizens as critical planning agents, and architecture and design as a means of social control are presented alongside this theoretical conceptualization of space to emphasis the intrinsically political nature of city-building. On the other hand, the design intent of an urban common space may vary drastically from the lived experiences of and socio-economic interactions between users (i.e. residents) within these spaces. It is important to acknowledge that users engage with space continuously over time to vest it with meaning and identity, both through physical alterations and performances as they pursue their own basic human necessities.

Second, since public space contains both material and experiential qualities, I examine both the physical and social qualities of informal urban common spaces. By stressing the unique material and experiential qualities of informal space, we begin to understand how the design, development, occupation and appropriation of informal space differs from traditional planning mechanisms based in colonial and capitalistic thought. I move across scales to understand informal development patterns from the household to the neighborhood, working within Gouverneur's (2016) "Informal Armatures" (IA) framework to explain the non-standard, yet rational growth of informally developed settlements. Furthermore, Simões Aelbrecht's (2016) identification of "fourth spaces"

presents a useful theoretical framework by which to characterize the distinct social nature of informal urban common spaces.

Third, I explore the concepts of *fronteras invisibles* and *cultura ciudadanía* as they relate to the socio-spatial and political tensions present in the context of Colombian informality. Colombians use the term *fronteras invisibles*, or invisible borders, to articulate the geographies of power and control in contexts of informality, and *cultura ciudadanía*, or citizenship culture, to refer to a collective Colombian social identity. Government, non-state (e.g. paramilitary and narcotrafficking entities), and local groups (e.g. community organizations and residents) have a long history of struggle over control of territories and fragmented social identities. I highlight the important role of public space under the official government development paradigms of "social urbanism" and "pedagogical urbanism" in mediating these tensions, particularly where topographic constraints dictate urban development patterns, and the impact this has on the availability of public space and overall sense of security and community identity in these areas.

The contributions of this research are two-fold:

- *Contributions to urban planning and urban design practice:* This research will provide planners and designers in rapidly urbanizing cities of the Global South a better understanding of how space is created, occupied, and appropriated in contexts of informality. This knowledge will be used to plan, design, and build new spaces which better support the lifestyles and needs of these residents through more responsive urban planning and design practice.

- *Contributions to academic research:* This research will contribute to research on urban public space which simultaneously integrates spatial and social dimensions, focusing on the particular spatial and social practices of informality. My findings related to materiality, scale, and spatial arrangements of urban space provide a basis for innovative discussion of articulations between mechanisms of social control and quotidian practices of public space appropriation. While I build on existing planning and design works rooted in the colonial tradition, my research also acknowledges that informality presents its own distinct context which, at least partially, falls outside the purview of this tradition.

Urban planners and designers advertently and inadvertently work to fundamentally alter the ways in which residents conduct social and economic exchange in contexts of informality as a means of exerting social control to advance particular social behaviors. By planning to and re-designing spatial relationships in informally developed regions of the city, residents are encouraged to participate in the capital-driven, formal economic sector. The lack of public space infrastructure in these areas created a clear point of entry for intervention by professional planners, but these spaces were ultimately planned, designed, and built without firm understanding of the existing social networks and behaviors of residents nor their means of economic exchange beyond what could be gathered from a limited number of community engagement meetings.

While planners act in the pursuit of progressive, more equitable planning outcomes in these regions of the city, their practice demonstrates an implicit bias that

values certain social users and activities in public space, while discouraging or even criminalizing others. The disruption of existing spatial relationships to better reintegrate neighborhoods is a clear, transparent, and directly stated goal for planners working on PUI projects across Medellín. While this goal is rooted in the pursuit of social equity through an increased sense of security and improved access and connectivity, the impacts of disrupting the existing social networks and livelihoods of residents have not been fully understood in projects which have already been implemented. By highlighting the contrasts between unplanned spatial relationships and their accompanying social qualities versus government-implemented projects, I demonstrate how urban planners and designers have manipulated space in contexts of informality to encourage certain ways of behaving and interacting in urban common spaces.

For this thesis, I conducted a qualitative research methodology grounded in an in-depth case study in Las Independencias I, San Javier, Medellín, Colombia. My primary data collection relied heavily on public space observations and documentation in the field, as well as both semi-structured (formal, recorded) and informal (on-site, not audio recorded) interviews. In total, 25 informants ranging from private sector architects, planners and designers to government officials to community activists and residents shared their perspectives during my field research in the summer of 2017. I conducted spatial analyses and mapping based on my public space observations, and I created drawings based on photographs and hand sketches conducted while in the field.

I chose to focus my research in Medellín, Colombia, given the city's emerging reputation as a global leader in urban innovation, specifically regarding socially-

conscious planning and urbanism practice. Furthermore, San Javier's dramatic reduction in violence through investment in social programming and physical infrastructure enhancements such as the famed public escalators are emblematic of the city's transformation over the past twenty years. San Javier's infamous reputation as the epicenter of Medellín's urban violence stems from many non-state entities including guerrilla fighters, narcotraffickers and local militias vying for control and power against the national military and local police forces in the urban peripheries. As a result, the exceptional nature of this case study magnifies the impact of participatory planning and urbanism practice in contemporary informal settlement in Latin America.

Given the high-profile nature of the public escalator project in the global architecture and design communities, I wanted to delve into the social life and history of the project to more critically assess its design merit and social impacts. As such, I paid particular attention to who is using these spaces, when they are using them, and for what purposes. Additional analysis regarding the location of vendors and movement of users through spaces provided another level of spatial understanding and complexity to the spaces. The materiality and design characteristics of these spaces were also of particular interest, specifically comparing facades and spaces adjacent to the interventions with the spaces themselves. The case study provides sharp contrasts between current conditions and historical characteristics of the space as cataloged through old photographs and resident narratives.

STRUCTURE OF THE THESIS

The second chapter reviews the methodological underpinnings for my study of urban public space design and planning in contexts of varying informality. I begin by describing my research design, detailing the process of analyzing and validating my findings, and explaining how I translated these findings into various types of representation including writing, mapping and drawing. I finish the chapter by addressing the limitations of the study such as time, financial resources and data availability, and also discussing my own positionality as a temporary foreign researcher.

The third chapter outlines my theoretical framework. I draw from several bodies of literature to present an analytical framework which acknowledges the dialogic between the material production and social construction urban space as well as the power dynamics of various social groups vying for control of these contested urban spaces. In order to support my argument, I draw from three main bodies of literature, including work on the urban form and growth tendencies of informality, sociological and geographical perspectives on the social and material character of space, and urban policy literature which highlights state perspectives on urban power relations and social control.

The fourth chapter provides a review of historical and contemporary urban planning and development practices in Medellín, Colombia. I focus particular attention on evolving state perspectives on informality, beginning with the city's rapid and on-going urbanization in the mid-twentieth century, the city's struggles with urban violence and security during the 80s and 90s, and ultimately Medellín's contemporary urban planning responses through "social urbanism" and "pedagogical urbanism" today.

The fifth chapter delves deeper into Medellín's contemporary planning practice by examining a particular Integrated Urban Plan, or *Plan Urbano Integral* (PUI), which has been partially implemented in the Comuna of San Javier. First I provide a critical assessment of several key macro-projects at the district level, followed by an in-depth analysis of several micro-projects located within the neighborhood of Las Independencias I. Following this overview, I further analyze the public escalator system and the mid-hill viaduct by drawing findings from my own field observations. The sixth chapter holistically reviews the conclusions of these findings.

Finally, in the seventh chapter I discuss the tensions in my argument and reflect on my research findings. Through this discussion, I identify the challenges and opportunities associated with design and planning in varying contexts of informality as well as additional lines of inquiry for potential future study. In addition, I offer several recommendations on how local urban planning and design practice can be more effective in working with neighborhoods to enhance social, environmental and economic equity outcomes.

Chapter 2: Research Design and Methodology

INTRODUCTION

This thesis focuses on the planning and design of new public spaces and their role in the state's attempts to control and shape the socio-spatial relationships of residents in the context of urban informality. Over the past two decades, Colombia has emerged as an international leader in progressive spatial planning practice, leveraging the provision of public space as part of a critical strategy to curb levels of urban violence and to enhance the quality of life of its residents. In no other city is this transformation more dramatic than in Medellín, whose levels of urban violence in the 1980s and early 1990s were the highest in the world.

In response, coalition-building between key stakeholders across multiple levels of governance and local planning research within the city materialized during the mayoral administration of Sergio Fajardo beginning in 2004. During this time, new progressive planning tools such as the Integrated Urban Project (PUI) were formulated to execute physical design interventions in traditionally marginalized and impoverished regions of the city. The projects, collectively referred to as 'social urbanism' by Alejandro Echeverri, the former Director of the Urban Development Corporation (EDU), have been touted as a best practices model of equitable planning, leveraging extensive community engagement and iconic architecture and urban design to deliver quality public spaces and social programming in an attempt to improve the quality of life for local residents (Sotomayor, 2015).

The sheer volume and dispersion of contemporary planning and design interventions in the peripheries of Medellín required that I began by identifying particular areas of interest in order to then locate the precise site of interest for the research study. Ultimately, I chose to focus my case study in the district of San Javier due to several key factors. Most importantly, I was interested in learning more about the dramatic shift in levels of violence in the district over recent years. Change is attributed to many factors in the district, including military intervention, enhanced accessibility and mobility and the provision of new, quality public spaces. I was interested in looking at these planning and design interventions in San Javier as projects which demonstrate explicit relationships between state planning and urban design processes and socio-cultural outcomes including physical security, social control and the enhanced visibility/institutionality of the state.

Within this context, I chose to focus my case study on the public escalators and viaduct located in the neighborhood of Las Independencias. These projects exemplify the state's planning agenda across several scales, leveraging linear interventions to enhance accessibility and mobility, linking nodes of social activity to enhance state visibility, and disrupting invisible borders to promote peace and security. Furthermore, it is important to note that the public escalators were a pilot project: there are no other outdoor public escalators in the city of Medellín. Therefore, the findings of this unique case study can be used to better inform future planning and design interventions in similarly-situated settlements across Medellín and the Global South.

METHODOLOGICAL APPROACH

As a researcher straddling the disciplines of urban planning and urban design, I am interested in studying both the social life of urban common spaces as well as their physical form and materiality. However, in order to subvert the expert – subject binary embedded in Western planning traditions, I take a post-colonial, feminist epistemological research stance grounded by a qualitative framework which acknowledges the vast diversity of knowledges present in a given research effort as well as the role and position of the researcher in the effort. Through conducting qualitative research, I seek to engage with residents' stories and narratives via more informal interactions and observations and focusing less on traditional, qualitative and positivist research methods (Letherby, 2003). In pursuing this approach, I sought to capture local, contextual "situated" knowledge rather than naively attempting to produce absolute knowledge about a place to which I had no previous relationship (Haraway, 1988). This would provide greater opportunity to engage in the various dialogues which both shape and are shaped by social interactions in public space.

By directly engaging with local experts in urban common spaces which already hold meaning to them, rather than inviting residents into traditional, paternalistic spaces of participation such as the town hall or auditorium, we are able to elevate the "situated" knowledges present in the community (Miraftab, 2004; Haraway, 1988). By acknowledging alternative spaces of politics, I seek to leave myself more vulnerable in hopes that this reality can start a dialogue between myself, the foreign researcher, and the local experts, i.e. the community residents. My own positionality could be interpreted by

some as representing an interest of the state, which I will aim to overcome by using familiar reseach methodologies in more contextually sensitive manners to reflect the reality that many activities within informal settlement could be viewed as extra-legal (Zetter & De Souza, 2010).

Maintaining open and honest diaolgue around these issues will be vital to both the accuracy and validity of my research. The ways in which this knowledge is collected and represented is also of great importance. I seek to challenge the common reliance on static mapping exercises by embracing new forms of visual representation which favor and reinforce local collective perceptions and knowledge (Brooksbank-Jones, 2005). Furthermore, I employ feminist geographies of analysis in my research in response to the pervasive culture of *machismo* in contemporary Latin American society which results in gender imbalances across all realms of daily life. Therefore, it is vital to consider the scale of the body as well as the domestic sphere to reveal hidden or obscured gendered impacts related to the social construction of urban common spaces (Buckingham & Kulcur, 2009).

In order to contextualize a complex social phenomenon such as the construction of urban common space, I utilized an urban design case study approach based on Yin's methodological framework (2003). I gathered extensive data from a diverse combination of sources including official policy documents, archival records and images, stakeholder interviews, direct observations and physical artifacts (Yin, 2003). In this way, I was able to conduct an in-depth study of the public escalators and viaduct in Medellín with the goal of better understanding the socio-spatial processes in these spaces and, in turn,

considering how these processes can help to inform the understanding of other, similar informal spaces in the Global South (Gerring, 2004).

RESEARCH DESIGN

My primary field work research was conducted between May and August 2017. To collect the diverse array of datasets for the case study, I had to employ several different research methods concurrently throughout this period. In order to document the physical qualities of the urban common spaces in question, I conducted rough site measurements, hand-drawn sketches, diagrams and photos, and I also pursued archival records research on historic planning and policy documents and previous relevant academic studies. The social qualities of these urban common spaces were documented via semi-structured and informal interviews, direct public space observations, as well as the documentation of physical artifacts commonly encountered within the studied spaces (Yin, 2003). Each of these research methods is explained in detail below.

General Site Documentation

General site documentation consisted of two weeks of physical platform measurements, taking site photos and compiling hand-drawn sketches and diagrams of spaces of interest. These combined methods served as a base from which to analyze the physical form of the design interventions in terms of both scale and materiality.

Participant Observations

I conducted site observations during a two-week period towards the end of my field research. During discrete intervals of 15 minutes, I rotated from space to space,

collecting data points for a series of nine sequential spaces. This process was repeated 2-3 times per day, with over 6,000 individual users identified upon completion of observations. I developed a coded system of letters and numbers to quickly classify individual users of public space for future demographic and spatial analysis. I included the following categories, based on my own perceptions as an outside researcher: age group, gender, ethnicity and direction of movement. The high volume of users and activites during certain points in the day coupled with the subjective nature observations is sure to have introduced a certain degree of variance. In addition, due to the dialogic nature of public space, these observations cannot attribute causation to any particular socio-spatial variable, and therefore, the construct validity of this ethnographic study makes it quite challenging to determine causation (Singleton & Straits, 2005).

Archival Research

Using public servers and digital databases, I was able to gather a range of academic studies, particularly those conducted by local university students and professors, as well as publicly-available planning documents. In addition, meetings with local planners and architects produced other reference materials such as presentations and maps which were extremely helpful in understanding how these planning and design projects were formulated and executed. However, other, non-public materials remained off-limits to this research study. These materials included working planning documents, official construction documents, and public engagement materials and documentation.

Informal, Unstructured Interviews with Residents

My local interviews were conducted exclusively with residents living near the public escalators and viaduct in the neighborhood sector of Las Independencias I. Informal interviews were conducted with adult residents throughout the entire observation and documentation process, with the vast majority of these interviews occurring directly within urban common spaces as people passed through. In many cases, curiosity about my presence led residents to initiate conversations more frequently than I had anticipated. Given the abbreviated, sporadic and unplanned nature of these interviews, a voice recorder was never used, but verbal permission was granted by each participant to take hand-written notes prior to asking any research questions. Questions followed prompts approved by the IRB, focusing on topics including the uses of a given urban common space, the formal elements they do and do not like about the space, as well as the historic character of the space and if it has changed over time. Upon completion of field research, I had conducted 21 informal interviews with local neighborhood residents.

Semi-structured Interviews with Key Stakeholders

In order to balance the perspectives collected for this case study, I conducted four semi-structured interviews with planners and designers. These interviews addressed topics pertaining to the origins and evolution of existing municipal and federal policies guiding planning and design practice in Medellín as well as other questions directed specifically at the planning, design, implementation, and appropriation of the public escalators and mid-hill viaduct. Interviews generally followed an IRB-approved script

and each lasted approximately 1 hour. Each interview was audio recorded and subsequently transcribed in order to identify key themes for comparison. My interviewees included one quasi-government planner involved throughout the planning, design and implementation phases of the public escalators; a former Director of Planning for the City of Medellín; a practicing local architect with previous experience working with PUIs; and a local resident and architecture student.

Physical Artifacts

Other cultural expressions such as graffiti, hip-hop dance, and rapping, are also crucially important to document and analyze. The themes expressed through graffiti and performance art greatly influence the physical and social character of these urban common spaces, and I made sure to carefully document these cultural artifacts and expressions. In addition, a local resident and artist drew a cognitive map of the neighborhood before the escalators were introduced, explaining the socio-spatial qualities of the staircase that I could later analyze for emergent spatial themes upon completion of my field work.

DATA COLLECTION AND ANALYSIS

A previous academic research study in a similar urban context in the Dominican Republic helped to inform the research design of my own field work (Sletto, ed., 2016). During the study, our team employed feminist research methodologies to encourage resident-driven decision-making and participation throughout the entire planning and design process. Extensive participant observations and resident interviews elevated the

role of local knowledge and helped our team develop a fine-grained understanding of the material and social character of the neighborhood in preparation for participatory design workshops. However, the data collection and analysis processes in Medellín had to be adjusted in order to best respond to the local context. For example, with no research partners for the project, I relied heavily on knowledge and information gathered from two previous trips to the city Medellin to build a list of potential research sites. Working with local friends and professional contacts, I began to collect names and contact information for relevant planners and designers as well as community organizations engaged in work in these prospective research sites. It was not until my three-month field work visit that the final site of interest was confirmed. While my research protocol was already established, substantial adaptation was required to most accurately capture the desired datasets for analysis.

Upon a week of arrival, I had reached out to pre-identified planners and architects to schedule semi-structured interviews and had also met in-person with the two major community groups in San Javier with whom I planned to collaborate, the *Red de Apoyo para la Mujer* and *Casa de Hip Hop Kolacho*. After speaking with each about the proposed research protocol and gathering their feedback, the overall research schedule was adjusted to collect form-based datasets first, followed by interviews and ending with observation. In this way, the least intrusive data was collected upfront, followed by casual conversations with residents, and finally, in-depth documentation of individual users of public space.

The physical documentation of spaces and informal interviews were executed in direct accordance with the research protocol. Beginning in early June, I began taking trips to the community to photograph and sketch each of the spaces within the site of interest during different times of the day. I avoided directly photographing residents as part of this exercise, which at times became a challenge due to the high volume of users and the small scale of most spaces. After about two weeks in the community, I had gathered the necessary information for future analysis. At the same time, residents had become interested in my work and began to converse with me about the project. This led to the start of informal interviews with residents, which continued for several weeks. I visited the community several days each week just to chat with residents who I encountered in public spaces, while the rest of the time I spent transcribing notes and organizing photos and documentation materials. Most residents were happy to talk and were very open about the neighborhood's past history of violence and the changes they've seen in recent years. In fact, several of these informal interviews became recurring meetups where I developed strong relationships with a few key informants. Once I felt that I had collected an adequate cross section of residents, I decided to move on to direct observations.

The process of conducting direct observations required the most adjustment. First, the number of micro spaces within the study site required an observation strategy which could gather enough data to generalize findings, while also avoiding oversampling or lessening the potential to gather equal amounts of data from the other sites of interest within the same part of the day (e.g. morning, afternoon). Second, the high volume of users at certain points throughout the day required significant refinement to the data

collection process in order to ensure ease of coding and documentation. I spent one week conducting preliminary observations and adjusting my approach until I arrived at the appropriate observation method described in the research design section above.

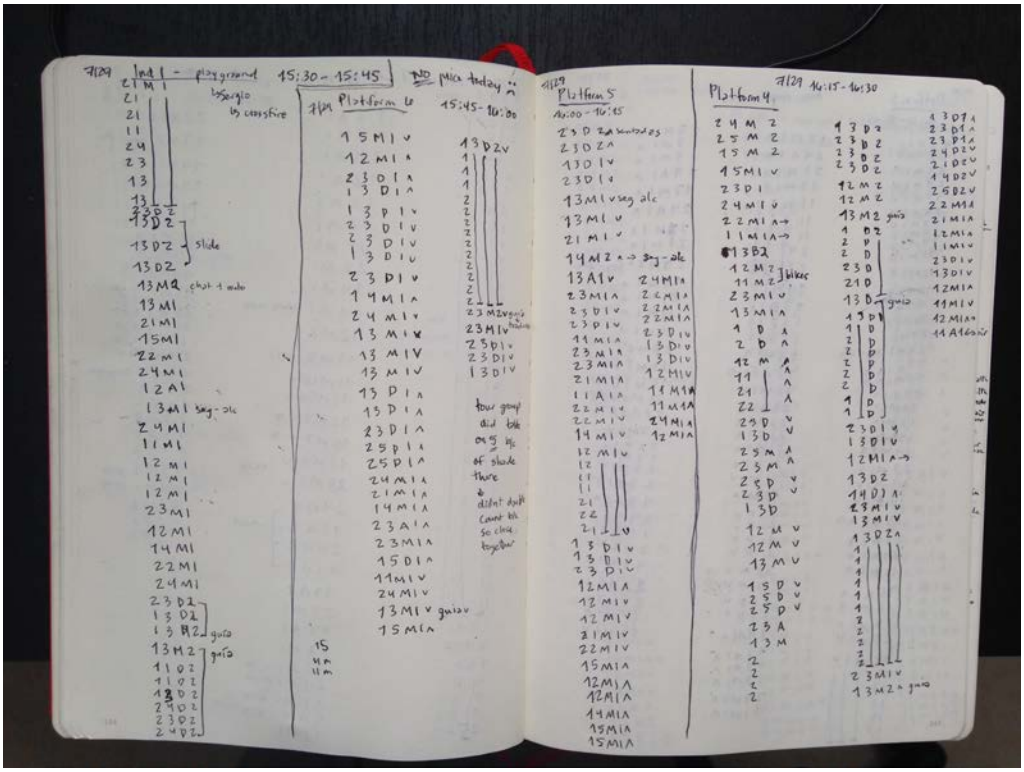

Figure 1: Example of handwritten observation notes from field research

These observation data points, along with the remainder of my documentation materials and interviews, were digitally transcribed and recorded upon my return to Austin in mid-August 2017. Over the course of the fall semester, images and sketches were first classified and categorized based on form-based typologies of space for in-depth analysis later in the semester. Semi-structured interviews were digitally transcribed along with informal interview notes, and subsequently highlighted for important points and recurring trends. Finally, observation points were digitized into an Excel spreadsheet for

analysis. In all, these processes were completed by the beginning of December, while design analysis was simultaneously underway regarding the first datasets uploaded on space typologies.

Given the nature of my dual degree program with planning and urban design, I needed to write up my findings in the form of a thesis as well as graphically representing them through 2D and 3D software for a final design review. During the fall semester, I developed metropolitan- and district-level descriptive maps using publicly available data sources from the City of Medellín. These maps helped to situate the particular site of interest and have allowed for on-going analysis of research findings. In the spring semester, I focused my design work on the site scale, moving into detailed mapping and spatial analysis drawing on the unique field observations from the previous summer. Ultimately, this more detailed, site-specific information deploys both traditional architectural graphics such as planimetric and axonometric drawings, sections and elevations, as well as less traditional visual representations to better reflect resident narratives and relational perspectives to space.

My thesis fieldwork focused on a specific urban planning and design project located within Las Independencias. Employing a case study methodology and focusing on the public escalators and viaduct in this neighborhood, I drew on a feminist epistemological research approach and worked closely with residents to gather local narratives in addition to more technical design and planning data. Direct observations required significant refinement to successfully capture the necessary data points for analysis upon return to Austin in the fall of 2017. Over the course of several months, all

of the data was digitized and subsequently analyzed for inclusion in this written thesis as well as visually represented through original digital drawings. While there are limitations to external validity when conducting research at the small, local scale such as this, Colombia's situation within the broader landscape of Latin America and the diversity and complexity of Medellín's population are typical of many large urban centers in the Americas. Therefore, this qualitative case study provides valuable insight to both planners and designers across the academic and professional realms engaged in work across the Global South.

Chapter 3: Theorizing Informality: Agency and Autonomy in Urban Common Spaces and the Role of Planning and Design

BACKGROUND AND PURPOSE

The 20th century marked a general ambivalence by the state towards the ever-present and growing phenomenon of urban informality across the Global South. However, recent state efforts to engage in formal planning and urban design processes, framed initially as 'social urbanism' and today as 'pedagogical urbanism,' have resulted in a paradox: while the state seeks to compensate for its historic absence by generating new civic and mobility infrastructure and social programming to improve the livelihood of residents, it is also seizing the opportunity to inject and enforce state-led social control through both passive and active means (Berney, 2011; Sotomayor, 2015).

In the case of Colombia, these interventions evolved from an historic lineage of Integral Neighborhood Improvements (MIB) programs, including the 1993 establishment of the Integral Program of Subnormal Neighborhood Improvement (PRIMED). PRIMED marked the first major coordinated state planning effort to extend critical physical infrastructure to the urban peripheries. Approximately ten years later, the Integrated Urban Project (PUI) replaced PRIMED by building on program successes while simultaneously elevating the role of resident participation and community ownership over the planning and design process. Today, the PUI has become the emblematic tool of the 'social urbanism' movement, bringing Medellín international acclaim in the fields of planning and urbanism. Yet at the same time that the PUI has been successful in integrating top-down and bottom-up planning strategies to facilitate significant physical

and social investment in the urban peripheries, these planning processes continue to reflect the Western planning traditions which hold the formal city as the referent when dictating planning processes and design interventions.

In order to better understand the contested role of state-driven design and urban planning, my first body of literature considers the potentials of urban citizens to formulate and execute radical and insurgent planning versus politically-driven, state-led planning and design interventions which seek to exert social control. Moving away from questions of power, insurgent planning and social control, the second body of literature draws on Low's 'socio-spatial dialogic' framework to critically examine perspectives on the design and social life of urban informality. The last body of literature presents contemporary paradigms of Colombian public space including the role of public space in constructing a shared culture of citizenship (*cultura ciudadania*) and the disruption of geographies of violence through breaking down invisible territorial boundaries (*fronteras invisibles*).

STATE CONTROL AND CITIZEN POWER STRUGGLES: THE RIGHT TO THE INFORMAL CITY

The first body of literature draws from informality studies to situate the role and practice of urban planning and design in contemporary city-building at a macro-scale. In assessing urban informality, I take a 'critical governance approach,' (Mukhija & Loukaitou-Sideris, 2015) leveraging post-colonial perspectives to critique the role of the state in contemporary urban planning and design practice while simultaneously emphasizing the agency of local community actors and their capacity to produce and

shape the physical and social identities of their own neighborhoods. The definition of ‘urban informality’ must therefore reflect the increasingly complex sets of urban conditions observed and experienced within ‘ordinary cities,’ (Robinson, 2006) and consider the role of macro-urban factors of late capitalism such as globalization, urbanization and neoliberalization in the generation and preservation of informality.

As such, I borrow Roy and AlSayyad’s definition of ‘urban informality’ as a mode of urbanization consisting of a deliberate organizational structure which operates not separately and outside the state planning apparatus, but rather as a state of exception within which particular norms and regulations have been suspended (Roy, 2005). By framing informality as a particular mode of production, Angotti and Irázabal conclude that ‘informal settlements’ represent the physical manifestation of economic and spatial peripheries resulting from this global system of dependent capitalism (2017). While varied across geographies, the spatial form of the informal settlement “arises from within itself and its makers,” (Brillembourg & Klumpner, 2005) reflecting a number of real-time decisions made by the builders at the time of construction in response to environmental and economic constraints as well as scalability and incremental expansion over time (Lara, 2009). In this sense, the informal settlement becomes the ‘kinetic city,’ marked by the constant shifting and incremental evolution of the built environment along with the constant movement of people and goods across the landscape (Mehrotra, 2009).

This blurring of informal and formal spaces is also noted by Sassen, who frames informality as a ‘borderland’ rather than a fixed borderline between formal and informal realms (2005). Yiftachel takes this notion of blurring even further, arguing that

informality is derived from strategic state absence as a means of maintaining control, the 'gray space' which lies between legality, safety and citizenship (white) and criminality, danger and displacement (black) (2009). The author highlights the paradox of informality, noting that these spaces of are themselves products of the state's lack of control. While simultaneously intervening in particular aspects of informality (legitimization) via the creation of public spaces, for example, the state simultaneously allows other aspects of informality to persist if they are not perceived to be in conflict with the state's development goals (Yiftachel, 2009). Borrowing Foucault's concept of 'governmentality,' or dispersed power which guides and re-creates the human as a subject to be governed, Huxley addresses the importance of boundaries to state actors seeking to delineate governable spaces through which spatial and social relationships can be mutually formed (2006).

In thinking about the role of space in relation to social control, it is also important to define what is meant by the term public space. To describe public space, I apply Alves dos Santos' definition for 'urban common space' (2014). 'Urban common space' is defined as space which is designated for "public use and collective possession and belongs to the public authority or to society as a whole." Analyzing these spaces requires an understanding of the absolute, relative and relational aspects of space as outlined by Harvey and the experienced, conceptual and lived spaces delineated by Lefebvre. In this way, public space cannot be viewed entirely through any one particular lens of analysis, but rather as a blend of all these aspects in constant dialogue with one another. Furthermore, by acknowledging urban common space as a site of conflict and tension,

Harvey and Lefebvre leave open the potential to analyze the materiality and symbolism present within a given space (Alves dos Santos Junior, 2014). Other theorists agree that this social struggle over the production of urban space resulting from late capitalism continues to frame contemporary architecture and urbanism across much of the globe (Kapferer, 2007; Roy, 2011).

Within the context of informality, this social struggle is embodied through the actions of residents not as a 'social movement' or a matter of 'everyday resistance,' but rather as the "quiet encroachment of the ordinary;" i.e. the agglomeration of atomistic individuals who act out of necessity rather than of conscious political motivations (Bayat, 1997 & 2000). In his opinion, these actors seek to obtain the base amount of social goods and opportunities necessary to achieve a basic standard of living, driven by their ultimate desire to preserve their cultural and political autonomy (Bayat, 1997). Within this microcosm of the larger urban power struggle between the state's pursuit of spatial order and the individual citizen's expression of self-autonomy, individual residents interact day-to-day in informal public spaces and establish their own "passive network" of streets and linear connections mediated through implicit understanding between individuals (Bayat, 2000).

These movements employ emancipatory spatial practices such as the physical appropriation of space, the reorganization of material space, the re-signification of space, the development of alternative economies or the construction of spatial networks so as to disrupt the existing order in place. This dichotomy between order and self-autonomy positions residents and grassroots organizations as "critical urban planning agents" to re-

direct spatial regulations in favor of the local public interest and the social situation of residents who occupy these spaces rather than the state's narrow conception of spatial order and control (Lopes de Souza, 2006). Through these individual and collective discourses on public space, intimate local knowledge produces an alternative power structure entirely independent to that of the greater community to the state (Foucault, 1982). At the same time, however, power often becomes fragmented due to the highly decentralized and autonomous nature of many contemporary Latin American social movements and their struggle to lay claim to territory (Lopes de Souza, 2015). Moving forward, public spaces will become increasingly crucial as a means to foster a (physical and social) common ground by which these diverse groups of interests can organize themselves to advocate for change.

While these theories of informality do well to address issues of power, politics, and citizen participation in relation to informality, the role of planning and design has been cast as inevitable and unnecessarily antagonistic. However, this narrow perspective fails to acknowledge the potential of design to integrate more formalized infrastructures and to advance more socially and environmentally just communities (Rao, 2012). Whether intervention is inevitable or not, the challenge for contemporary planners and designers continues to be how to meaningfully identify and classify the complex formal relationships of urban informality. However, when these spatial forms and relationships are analyzed along a formal-informal continuum rather than a dualist framework, it becomes clear that the greatest density of activities occurs in-between these two poles (Lutzoni, 2016). As such, Lutzoni argues that this continuum is the most effective

framework to pursue planning and urban design interventions, framing urban design as an instrument of knowledge and understanding that with each action observed in a given space, greater shared knowledge of the space accumulates. Residents, planners and designers are able to leverage this new knowledge to inform future action and design decision-making. It follows that this approach assumes that no one particular act will influence the socio-spatial character of a space, but rather that every intervention works to produce an intermediate space which reflects continuous socio-spatial transformation over time for a given space (Lutzoni, 2016).

THE SOCIAL PRODUCTION AND THE SOCIAL CONSTRUCTION OF INFORMAL SPACE

In following this socio-spatial framework presented by Lutzoni, the second body of literature uses Low's concept of the 'socio-spatial dialogic;' i.e. the notion that space is first socially produced and subsequently socially constructed (1996). This understanding of space evolved from Lefebvre's seminal work (1991) on the social production of space as well as geographer Edward Soja's conception of the 'socio-spatial dialectic' (1980), which argued that material space and the social activity which occurs within it influence one another to create a unique, dialectic spatial identity which shifts over time. Low builds upon this framework by arguing that the relationship between the (socially produced) material space and the (socially constructed) social space is equally dialogic, with spaces constantly evolving through physical alterations in form as well as a diverse range of human relationships and experiences over time which disallow any absolute understanding of space at a particular moment in time (1996). Within this framework,

social production is left to the realm of planners, designers, and government bureaucrats who produce physical manifestations of underlying historical, socio-political and economic forces at a specific point in time (1996). Social construction, on the other hand, reflects both the physical alterations of the space and evolving socio-cultural relationships within the space over time. This on-going dialogue between production and construction results in constantly evolving perspectives, personal meaning and social identity associated with a given space.

Low also considers public space a critical site of negotiation. In an increasingly globalized world, public space becomes one of the few remaining spaces to encounter and reconcile a diverse array of cultural identities and to form community. In this way, she argues that public space is a "container" which protects the potential for social interactions (1996). By discerning the cultural identity of a given space (i.e. a product of Western European spatial planning and modernist architectural forms), Low suggests that the design (spatial form) of a given public space has profound implications for either promoting or discouraging certain social behaviors and activities. For example, modernist designs for public spaces often create vast, open spaces with high levels of surveillance, leaving little refuge for illicit activities. This, in turn, alters the geographies of criminality, shifting some of these activities into the private or domestic sphere (Low, 1996).

The plaza and the extension of the orthogonal grid upon the landscape in contexts of informality harkens back to a historical remnant of the city's Spanish colonial founding in accordance with the 1573 *Ordenanzas*, or the Laws of the Indies (Hernández

& Kellet, 2009). These traditional spatial forms, while ubiquitous across many Latin American cities, have little to meaningfully contribute towards urban informality today. While iconic architecture and urban design help to legitimize the efficacy of these projects to the local population, they also serve to rebrand Medellín as a global city rather than a stagnant manufacturing hub to the global investment community (Sotomayor, 2015). In fact, this 'monumentalization' of the periphery (Duque Franco, 2014) through the introduction of new, modernist forms and dramatic colors and scales which can be seen from the formal city have little in common with the design of informal settlements, considered by some as lacking in any formal design elements (Brillembourg & Klumpner, 2005). The visual identity of these projects reflects a distinct set of power structures, asserting control through their scale, elevation and distribution (Lynch, 1981).

However, analyzing these projects as symbols alone is insufficient, because these projects, much like the surrounding context of informality, will continue to shift and evolve over time to alter use and meaning (Mehrotra, Shett, & Gupte, 2009). In other words, these monuments not only symbolize the power of the state and efforts to advance modernity, but also reflect the current operations of the state as a product of an increasingly neoliberal local governance structure (Kapferer, 2007). When one shifts their focus away from promoting particular spatial forms to identifying types of urban space within informality, new opportunities for planning and designing more flexible and culturally appropriate types of urbanism begin to materialize (Mehrotra, Shett, & Gupte, 2009).

Working within this concept of urban typologies of informality, Gouverneur (2016) advocates for new spatial networks or 'informal armatures' to provide a flexible, adaptable framework by which future growth can be directed and controlled organically while also maintaining a robust system of public spaces which protects and enhances the existing ecological and social (cultural) landscapes of the neighborhood. Gouverneur delineates three primary organizational components for contemporary informal settlements: corridors, patches, and stewards (Gouverneur, 2016).

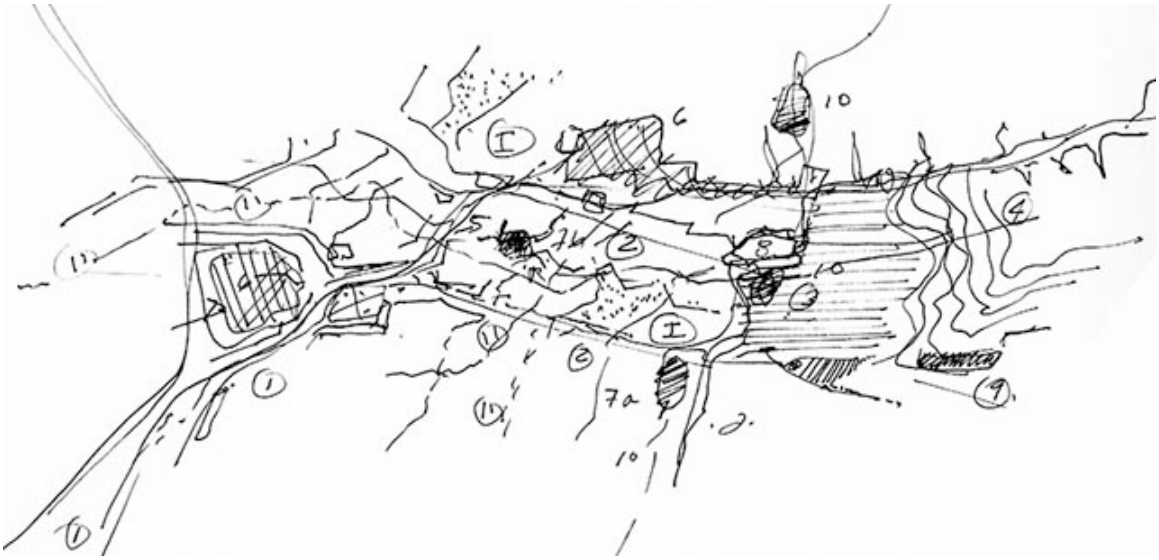

Illustration 1: Gouverneur's Informal Armatures framework for planning and designing future informal settlements (2016)

Corridors consist of public space networks which frame and organize individual and communal interactions. Corridors can serve to either attract or concentrate development around particular urban spaces such as streets and plazas, or can serve to protect certain areas from development, remaining as residual open spaces such as creeks or extreme topographies. Conversely, patches are more private spaces where people

reside, consume, or produce. Patches can act as receptors for predominantly residential urban growth, or as transformers, offering a range of productive and income-generating uses. Finally, stewards are considered the community leaders and guardians of the neighborhood who protect and enhance the system of public spaces by advancing the needs of the community (Gouverneur, 2016).

Above all, Gouverneur stresses the need for spaces to be designed to perform a wide range of functions simultaneously, which in turn encourages community leaders to maintain and enhance these spaces over time. It is also important to note, however, that the author acknowledges the conflicting outcomes of planning and designing spaces in the context of informality. Whether intentional or not, the often precarious nature of self-built development and the absence of legal deeds for property falls into tension with state-sponsored planning interventions. More specifically, Gouverneur notes that social exclusion can often be augmented through these processes due to forced displacements related to land tenure, environmental vulnerability, skyrocketing land values and rent costs, and continued prevalence of systemic barriers to access the formal market such as credit (2016).

While the ‘informal armatures’ framework provides the adaptability necessary to plan for and embrace varying degrees of informality, it is impossible to project how altered socio-spatial relationships will evolve based on the means of material production and existing social networks alone. What becomes essential then is to craft a vision which effectively captures the local neighborhood objectives and engages local stewards of public space throughout the process to reinforce social bonds to particular sites and

places (Gouverneur, 2016). Further attention to defining the roles of citizens, designers, and policy makers in this process will also be crucial in order to effectively respond to the rise of the informal city as the dominant urban form of the 21st century.

Lynch takes a similar approach to qualifying the form of the city, departing from a one-dimensional analysis of the existing urban form to studying the ways in which space is manifested through a deliberate planning and design process (1981). Lynch stresses the difference between performance and model in city-building, noting that performance relates to a general means of achieving a particular end, while models are much more prescriptive formulations which are less about process (1981). In this way, the concept of performance closely relates to the practice of 'performative architecture' in informal settlements, or the creation of built forms which set in motion new social processes and respond over time to shifting cultural influences (Brillembourg & Klumpner, Rules of Engagement: Caracas and the Informal City, 2009). The imposition of new spatial forms within a constantly evolving social imaginary demonstrate the conflicting conditions of hierarchy and autonomy within the city, as the diverse functions of the city are at once differentiated while also interdependent (Lynch, 1981).

Lynch identifies five types of spatial elements: paths, edges, districts, nodes and landmarks (Lynch, 1960). Paths represent the common routes of movement people utilize within the city. Edges are also linear elements, but rather than demonstrating movement, they mark physical boundaries or barriers which influence movement across the city. Districts represent larger sub-regions of the city which share a common identity, such as a neighborhood, while nodes demarcate a concentration of paths and movement, and

therefore, vital social life. Finally, landmarks function as symbols which can help to establish social identity, orientation or physical structure of a space (Lynch, 1960). While initially conceived of to represent observations within the formal city, the flexibility of this categorization of spatial typologies according to social functions supports Gouverneur's 'informal armatures' framework and Mehrotra's notion of the ever-changing 'kinetic city.' Furthermore, these five elements have created a space for planners and designers to analyze multiple scales of urban form simultaneously, as was demonstrated by a recent study by Simões Aelbrecht (2016) addressing the spatial relationships associated with informal activities and behaviors.

These informal social interactions extend Oldenburg's original concept of 'third places' (1999) where the first place is home, the second place is work, and the third place is a formally-designated, semi-private or private space designed for social interaction such as bars, cafés, libraries or parks. Simões Aelbrecht (2016) introduces the concept of 'fourth spaces,' or interstitial, temporal and highly public spaces, which often exist as edge or threshold conditions. Changes in patterns of circulation which lead to congestion or intersections have much higher potential to develop as 'fourth spaces.'

Contemporary public spaces often incorporate modernist principles which favor control via the production of vast open spaces with rational layouts and little local identity or design considerations, resulting in a condition which Simões Aelbrecht describes as "placelessness" (2016). The literature on control in design is mixed. For example, while planning measures and urban design interventions have contributed, in part, to the improved safety of neighborhood residents in recent years, there is a clear

trade-off between ceding a certain level of control to the state in order for one to feel safe and comfortable in public spaces. Simões Aelbrecht (2016) summaries findings of other scholars, noting that diminished visibility can facilitate greater informal uses (Cavan, 1966; Oldenburg, 1999) while higher visibility can invite more women and children to utilize public spaces (Laurier & Philo, 2005). Additionally, these 'fourth spaces' can adapt to a wide range of social functions both spatially and temporally, and as such, are incredibly dynamic and robust in social charater. 'Fourth spaces' are able to absorb all activities, rather than the relative rigidity of 'third spaces,' and consist predominantly of residual space or intermediate thresholds. However, when more ordered and controlled 'third spaces' allow for the formation of in-between spaces, the "hardness and fixity of long-term urban plans" can begin to be subverted (Simões Aelbrecht, 2016). The author categorizes a series of in-between spaces including thresholds, edges, paths, nodes and props as types of spaces with great opportunity for social interaction. She also argues that publicness is more dependent on unique and spatially complex arrangments of public space (an urban design question) than it is about ownership or accessibility. This leads to emergent typologies of urban public space based as much on deliberate design intent (social production featuring new methods of building and materiality) as on social character (social construction featuring ever-changing means of interpersonal interaction and ways of occupying space).

The author argues for the skillful overlapping of uses in public spaces so as to stimulate activity while avoiding conflict or over-congestion. While several architects have been able to achieve these ends, the solutions have largely been formal with little to

no consideration of social impacts on urban life. Gehl's (2011) study of the social life of public spaces gives us beautiful insight into how formal public space produces and is produced by social interactions, but, drawing on the work of Simões Aelbrecht, I argue that residents of self-built communities interact in distinct ways in informal urban common spaces versus the types of informal social interactions which occur more traditional, formal urban common spaces. Therefore, Gehl's contributions can serve as a firm base from which to record observations in the context of informality, but should be expected to vary significantly across the range of conditions of informality.

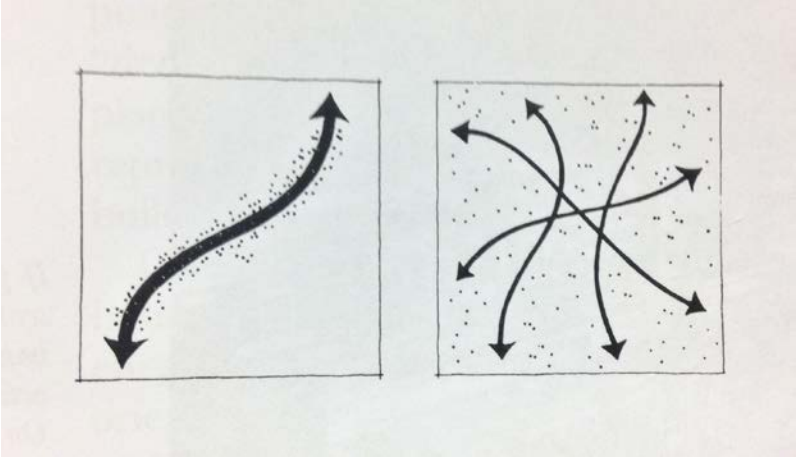

Illustration 2: Gehl asks whether design encourages assembly or dispersion (2011)

Traditional Western European cities have been considered to have two intersecting spatial typologies to delineate urban public spaces: the street and the square (Krier, 1979; Gehl, 2011). The way in which these spaces should be designed for public life should reflect strategies which seek to both increase the number of individuals and the total duration of events in a given space (Gehl, 2011). This can be achieved by producing inviting public spaces which encourage assembly and integration by opening

up their form to both residents and passersby (Gehl, 2011). The integration of people and events within public space is more crucial to creating a vibrant social space than the integration of a variety of building uses. Inviting spaces blur boundaries between public and private realms using flexible design configurations and spatial forms, which also becomes a question of whether to keep spaces open or to work to enclose them (Gehl, 2011).

Simões Aelbrecht, however, emphasizes the mix of formally planned and designed spaces as well as indeterminate voids between buildings which function as spaces of social interaction and occupation. These spaces share public or semi-public accessibility rather than the privately-owned nature of 'third spaces.' Ultimately, Simões Aelbrecht's findings regarding 'fourth spaces' complement Gouverneur's 'informal armatures' framework by both acknowledging the need for urban design to more effectively allow space for flexibility and adaptability, rather than conceiving spaces with absolute programmatic plans and designs as in the current masterplan model. In this spirit, the author suggests that the designer would do well to frame their work from the scale of the body as a way to promote the diversity of users and experiences that a space can evoke. The idea of circulation, control and congestion as "favorable conditions for informal social life" means that urban design has a key role in enhancing publicnessness and vitality in public spaces.

COLOMBIAN PUBLIC SPACE: BUILDING CITIZENS AND BREAKING DOWN BORDERS

The social life of public spaces has also been of great interest to many prominent Colombian politicians in recent years. Following the 1991 Constitution which established public space as a constitutional right, policy makers have been contemplating how public space could better contribute to addressing some of the nation's most pressing questions such as insecurity and violence, growing social inequity and fragmented Colombian identity. Public space was framed as a means of providing improved quality of life for all residents, but particularly those who have been traditionally marginalized (as demonstrated through the social urbanism movement in Medellín.) Ultimately, Colombian public space was conceived by political leaders as the most effective means of promoting *cultura ciudadana,* or a shared culture of citizenship as well as to subvert *fronteras invisibles,* or invisible borders of urban violence.

The concept of citizenship culture or *cultura ciudadana* was expressly defined in Bogotá's city plan "Forming City" (*Formar Ciudad*) as "the set of shared customs, actions and minimum shared rules that generates a sense of belonging, facilitates urban coexistence and leads to respect for common heritage and the recognition of citizens' rights and duties (González Escobar, 2010). In Bogotá, the three mayoral administrations of Antanas Mockus, Enrique Penalosa and Antanas Mockus between 1995 – 2003 best demonstrate this contemporary public space strategy for building a shared citizenship culture. As an academic, Mockus was one of the first mayors to suggest that public space consists not only of a physical space, but also a broader social role and identity. For example, he and other politicians of the time desired to emulate Habermas' notion of the

democratic public sphere, a new space of shared citizenship and political participation (Murillo & Márquez, 2005). As such, he asserted that public space is:

> *a privileged space to construct citizen culture, that is to say, that the people learn to self-regulate and mutually regulate one another, to respect one another as people and as possessors of rights, and to modify (when the case arrives) the legal norms that dictate our character as citizens just as Arendt argues that 'citizenship is the right to have rights'* (Mockus, 2005).

Based on this conceptualization of public space, the first Mockus administration developed a system of social control mechanisms such as signage and performance art which sought to advance a sense of shared morality, respect, coexistence and citizenship within public spaces (Mockus, 2005). This emphasis on constructing a culture of citizenship contrasted with the Peñalosa administration which followed afterwards. Peñalosa, while supportive of enhancing public space culture in Bogotá, was much more focused on the social production of public spaces. With regards to public space, he believed that "before administrating it, you have to create it," resulting in a two-sided strategy involving the creation of new, quality public spaces and "recovering" existing streets, parks and plazas which had been "invaded" by street vendors (Peñalosa, 2005). Social control in this context, however, was achieved much more aggressively through land seizure and police raids in public spaces to evict vendors and confiscate goods, as well as the establishment of strict enforcement zones where regular patrols for illegal vending are now common (Donovan, 2008; Hunt, 2009). In short, while both administrations favored the efficacy of public space projects to promote political

competency and transparent governance, the distinct approaches of the former brought about a heightened sense of shared citizenship in public spaces, while the latter directed his energies towards producing more and better quality public spaces (Berney, 2010).

These networks of public spaces promote legibility across a range of scales, from the site itself through signage and design character to the neighborhood scale as a gathering space for residents, and finally to the city scale as part of a larger network of open spaces and mobility systems. Berney categorized the recent public space projects around three distinct typologies: “equalizing networks,” “hybrid hubs” and “educational spaces.” “Hybrid hubs” and “educational spaces” comprise a variety of programs, but both serve to advance the goals of building a shared citizenship between residents and a sense of conviviality (Berney, 2010). “Equalizing networks,” on the other hand, are predominantly linear in nature and function as the major mobility infrastructure in the city. In Medellin, these components would be those which would disrupt invisible borders and promote new modes and geographies of mobility (Berney, 2010).

Under the contemporary paradigm of ‘pedagogical urbanism,’ “social and spatial planning traditions [merge] to produce new social and cultural norms” where residents strive towards shared citizenship and coexistence in new, quality public spaces (Berney, 2010). However, the paradox of ‘pedagogical urbanism’ arises due to the fact that these new, democratic spaces of shared citizenship and coexistence were secured and maintained through a variety of passive and active social control mechanisms such as signage, cameras, security guards and police enforcement (Berney, 2011). Furthermore, these new public spaces are not distributed equally across the city, in part, due to the cost

of incorporating public space in dense and precarious periphery settlements. Also, they do not embrace activities which could be construed as private, such as sleeping or working; nor do they share the same levels of maintenance and security, thereby perpetuating certain social inequities (Berney, 2011). The high visibility of public space serves not only to demonstrate fiscal transparency and responsibility, but also represents state power and control as the major forum for forming citizenship (Berney, 2011).

In Medellín, a similar transformation of public space culture was underway as well, embodied by two major events: the opening of the first Metro light rail line in 1996 followed by the election of Sergio Fajardo, an independent politician and academic, as mayor of the city in 2004. Along with the opening of the first Metro line was the introduction of the 'Metro Aesthetic:' the set of social guidelines which, when paired with the universal design language of each Metro platform, would standardize the behavior of users, generate civility and encourage inclusivity (Stienen, 2009). The 'Metro Aesthetic,' reinforced by numerous social control agents, would inspire future political leaders to leverage the creation of additional mobility infrastructure as a key component of their urban development strategy.

Such was the case for Fajardo and the General Director of the Urban Development Enterprise (EDU) during his administration, Alejandro Echeverri. Echeverri explains that Medellín's contemporary development paradigm has been framed around increasing the opportunities for social exchange between citizens. The two focus regions of this development are the city center and the peripheral hillside communities of the city which he refers to as "zones of violence" (Echeverri, 2005). Projects located

within these areas under the PUI model have sought to integrate community participation and education into planning processes and governance as a means of promoting a sense of shared citizenship and co-responsibility using architecture and design as symbols of dignity and social transformation. For example, the 2008 – 2011 *Plan de Desarrollo* for the City of Medellín (as cited in Duque Franco, 2014) makes the claim that increased civic participation, along with the payment of taxes and the proper use of public spaces and mass transit, would ultimately create proper citizens and a better society. These investments in public space and other civic infrastructure also sought to support further urban growth and even generate local and regional tourism (Echeverri, 2005). While no one could have anticipated the growth spurred by these projects, their role in unlocking land values in these peripheral regions in the name of economic advancement for the elite local interests (Ortiz, 2012) and re-positioning Medellín as a global city to attract international capital from foreign investors (Duque Franco, 2014) leaves many planners and academics critical of their implementation.

At the same time that the City of Medellín was working to build a shared culture of citizenship through the PUI model, they also sought to address the growing inequality and violence that the peripheries of the city had been experiencing over many years. Extreme violence exacerbated and perpetuated the socio-spatial segregation of Medellín, with the city becoming so dangerous by the late 1980s that most residents, fearing for their own safety, stayed inside and avoided mixing with others (Duque Franco, 2014). This resulted in many urban spaces becoming a battleground for armed confrontations between various non-state actors vying for territorial control, with the state ill-equipped

to deal with the pervasiveness of the situation. As such, the recovery of public space was seen as a symbolic shifting of power and control away from armed groups and back to the people and the state, and therefore, the re-instatement of governability in Medellín (Duque Franco, 2014). The author states:

> *In general terms, social urbanism as a strategy and approach, aims to recover, in an integrated sense, the marginal city considered the poorest, most violent and insecure, and in this way, achieve or restore governance in those urban spaces where the absence of the State has contributed to inequality and insecurity. From this perspective, social urbanism is a proposal for urban intervention but also a political proposal for normalization and spatial control* (Duque Franco, 2014).

Government, non-state (e.g. paramilitary and narcotrafficking entities) and local groups (e.g. community organizations and residents) have a long history of struggle over control of territories, particularly in the case of Medellín. Colombians refer to this territorial conflict as the rise of *fronteras invisibles*, or invisible borders; i.e. the tacit spatial geographies of power and control in the city. Given the topographic and spatial complexity of the peripheries, in addition to the potential to recruit a high number of poor, urban youth into armed groups in these informal settlements, invisible borders became firmly delineated in the late 1990s as a means of maintaining territorial control following an uptick in narcotrafficking and organized crime violence in the early 1990s and the proliferation of vengeance and honor killings in the mid-1990s (López-López, Pastor-Durango, Giraldo-Giraldo, & García-García, 2014). By this time, levels of violence were so severe that police didn't dare to enter the hillsides of San Javier, where

invisible borders had been so embedded into the landscape that entry would result in almost certain conflict.

In response, the state sought to impose new spatial boundaries, a 'dispositional spatial rationality' that would re-introduce rational spatial order and state control, and therefore, would improve the behavior of deviants and reduce violence (Huxley, 2006). While this spatial strategy was applied to a very particular urban phenomenon of violence, Huxley also cites the breaking down and reorganization of space through Haussmann's plan for the city of Paris, whereby narrow, winding alleyways were replaced with wide, rectilinear boulevards to re-integrate more rational spatial organization and to extinguish the potential for assembly and rebellion in the old city (2006).

Similarly to Yiftachel's (2009) definition of 'gray spaces,' Monedero (2009) refers to these conflict regions as 'brown zones' due to the ever-present violence which marked life in these peripheral neighborhoods (as cited in López et al., 2014). Within these communities, invisible borders were communicated to residents and other warring armed factions using codes or drawings along well-known neighborhood edges (López et al., 2014). These physical delineations translated into total social control within their bounds, with residents' patterns of circulation, individual behavior and social networks surveilled at all times. Due to the fragmented circulation networks of the foothills, invisible borders often aligned with the main alleyway through a given neighborhood sector, such as was the case in Las Independencias I along the central staircase. As a result, these spaces became sites of frequent territorial encroachment, confrontation, and

conflict (Samper, 2014) leading to their reputation as what some residents today refer to as “the trenches” (local resident, personal communication, July 09, 2017). By 2010, upwards of 1,500 residents were being forcibly displaced from San Javier per year due to on-going violence along these invisible borders, with no less than 49 armed groups (the highest concentration in the city at the time) identified in the commune including *Los de Curvitas, Los de Cuatro Esquinas, Los de la Arenera, Los de la 115, Los de la Sexta, El Pesebre, Águilas Negras* and *Rastrojos* in the neighborhood of Las Independencias (Gómez, R. et al., 2012). However, the disruption of these invisible borders following a series of 11 military interventions in 2002 and the on-going implementation of the PUI San Javier since 2006 have resulted in a substantial drop in violence, and therefore, a new social life and identity in neighborhoods such as Las Independencias. It is this emergent socio-spatial identity which makes the case study such an important contribution to understanding the role of urban design and planning within the Colombian paradigm of public space.

CONCLUSION: LIMITATIONS OF THE LITERATURE AND PROPOSED ACADEMIC CONTRIBUTIONS

Only recently has scholarly research examined the social production of space in contexts of urban informality. The current informality literature seems to emphasize the tension between citizens and the state through the application of design, architecture, and planning to achieve particular political ends, including the need for social control and power over its citizens. However, this literature lacks critical perspectives on the links between materiality, spatial form, and social character in terms of urban informality.

While several key studies have focused on either the urban design of informal settlements or the sociology of informal social interactions, few studies have successfully integrated both of these research tracts simultaneously. Furthermore, the recent emergence and relative particularity of the Colombian public space paradigm has resulted in a gap between local politicians narrating their own work through specific examples in the built environment and academic theorists asking broader questions about these new spatial practices. My study, therefore, contributes an empirically based and nuanced study of the role of urban design to effect social control while improving residents' sense of security, taking a more pragmatic view of materiality, spatial form, and the simultaneous interplay of mechanisms of control and acts of subversion and appropriation.

My case study research in the neighborhood of Las Independencias, San Javier, Medellín seeks to bridge these complementary bodies of literature by drawing explicit connections between both the social production and the social construction of space within urban informality. My analysis of the "production" of these spaces will be informed by research observations on physical components such as the materiality, architectural forms, spatial typologies and descriptions of the planning and urban design processes from both resident and state perspectives. Conversely, my analysis of the "construction" of these spaces will be based on my field observations, where I noted methods of physical appropriation and spatial reorganization and the changes in the meanings and relationships which residents ascribe to these spaces. In this way, I hope to contribute to the existing urban design and informality literature, drawing on a case study

which directly situates state planning and design interventions in relationship to the lived experiences of residents.

Chapter 4: Urban Settlement Patterns, Informality and Planning Responses in Medellín, Colombia

INTRODUCTION

Contemporary planning practice in Medellín has significantly impacted the physical organization of space in the city, particularly in contexts in varying degrees of informality, and thus shaped how the city's residents use and appropriate these spaces. However, this was not always the case. The introduction of formal public space typologies in informal settlements over recent decades embodies the physical establishment of the state, allowing residents to occupy new public spaces for social and economic exchange while also exerting a high level of state control over what social and economic interactions it deems acceptable. To better understand the state's evolving role in the planning and development of Medellín, particularly its relationship with informal settlements, the chapter reviews the main planning paradigms present during four critical historical time periods. The chapter begins by identifying traditional settlement patterns within the Aburrá Valley from the Pre-Columbian era to early Spanish colonization. Following this historical overview of settlement patterns, the chapter focuses in on the evolution of Medellín's contemporary urban planning practice. This process can be divided into four main periods. *City visioning*, began in the late 1800s with the initial wave of industrialization and urbanization of Medellín, transformed a small town of several thousand inhabitants to Colombia's second largest city by the 1930s. *City planning*, starting in the late 1940s, saw the creation of several new institutions to address existing and deter future informal settlements and also codified the practice of

comprehensive urban planning, despite the ongoing lack of local planning autonomy. *City Development*, during the 1980s and 1990s, marks substantial institutional changes in governance, including municipal decentralization and the institutionalization of more socially and economically sensitive development. Finally, *social planning*, from the early 2000s to present day, reflects both top-down and bottom-up planning and development strategies.

SETTLEMENT AND SOCIETY IN THE ABURRÁ VALLEY: PRE-COLUMBIAN TO COLONIAL PARADIGMS

Historic settlement patterns in the Aburrá Valley have been heavily influenced by the region's unique physical geography, a narrow valley surrounded by the Central Andes and divided north-to-south by the Medellín River. Two Pre-Columbian settlements were known to have existed in the Aburrá Valley for hundreds of years prior to the arrival of the Spanish colonists, but lacked what would be considered defined urban nuclei comparable to future colonial settlements. Instead, the native tribes of the area generally lived in rural homesteads surrounded by agricultural lands, dispersed radially in concentric circles around a central, collective open space, with inhabitants dedicating their livelihoods to farming, fishing and textile production (Estupiñán Achury, 2001). As with many other Amerindian societies of the period, these adopted spatial practices blurred the boundaries between nature and culture through patterns of settlement which reinforced the symbolic, spiritual connection to the earth and its flora and fauna (Viveiros de Castro, 1998). However, Spanish colonization would fundamentally alter these relationships in favor of a more exploitative approach to nature and human settlement.

The first Spanish expedition of the Aburrá Valley occurred in 1541 by Jerónimo Luis Tejelo, but the lack of gold artifacts or other objects of value to the Spanish initially delayed more permanent colonial settlement (Restrepo Uribe, 1981; Simons, 2004). Over half a century after the initial survey, Francisco Herrera Campuzano founded the township of San Lorenzo de Aburrá in 1616 with a group of 80 Amerindians, where the commune of El Poblado exists today (Restrepo Uribe, 1981). Thirty years after its founding, under an official decree from the Spanish crown to segregate the indigenous and Spanish populations of the Aburrá Valley, the town was relocated to the north at the fork of the Santa Elena creek and the Medellín River in the area known as Aná, forcibly removing existing indigenous populations in proximity (Betancur, 1925). Following the establishment of this new settlement, Don Miguel de Aguinaga received a royal decree in 1675 to found the village of Medellín, initially comprised of 280 households, some 3,000 residents, in an urban grid measuring eight blocks in both length and width, and named in honor of Metello, the founder of Medellín in Extremadura, Spain (Restrepo Uribe, 1981).

As with other Spanish colonial settlements of the time, the village was arranged in accordance with city planning principles known collectively as the *Laws of the Indies*. Inspired by the work of Vitruvius of the Roman Empire, these planning philosophies were first consolidated in *The Ordinances for the Discovery, New Settlement, and Pacification of the Indies* in 1573 and subsequently restructured in 1680 as the *Compilation of the Laws of the Kingdoms of the Indies* as the guiding ordinances for all future colonial expansion and new settlements (Kinsbruner, 2005). Of these many ordinances, particular attention was given to the siting and design of the main plaza,

including considerations of the climatic conditions of the area, scale and prominence, and universal accessibility through the extension of a rectangular grid across the landscape (Kinsbruner, 2005). In Medellín, the main plaza was located in the heart of the new urban grid, with the Church of Our Lady of the Candelaria of Aná along its eastern edge, the town hall (cabildo) along its western edge, and additional residential blocks located farther beyond the village center (Restrepo Uribe, 1981).

Yet for over 200 years after its founding, the region's complex geography stifled population growth, with just over 6,000 inhabitants counted by 1826, the same year that Medellín became the capital of the State of Antioquia (Restrepo Uribe, 1981). Population growth would not begin to accelerate until the last decades of the nineteenth century, but once the process of urbanization and industrialization began, population growth quickly outpaced the local planning capacity to expand transportation systems, supply housing, and address growing public health concerns.

VISIONS OF MODERNITY: CITY PLANNING PRINCIPLES FROM THE LATE 1800S TO THE MID-20TH CENTURY

As Medellín became increasingly industrialized, the city sought to better address the needs of their growing population by drafting their first citywide plan in 1890, known as the "Plan for the Future Expansion of the City" (*Plano para el ensanchamiento futuro de la ciudad*) (Castrillón Aldana & Cardona Osorio, 2014). The plan focused on addressing problems brought on by the dramatic rural-to-urban influx of new residents but was hardly a shift towards urban thinking or institutionalized planning. To note, Medellín was growing annually between 25% - 30%, increasing from a population of

59,815 in 1905 to 79,146 residents by 1918, prompting major concerns regarding public health and hygiene due to the increasing congestion of streets and public spaces (Betancur, 1925).

To more effectively address these public health and circulation concerns, Medellín established its first official urban boundaries in 1905, the municipality's first attempt at defining its service area coverage (Naranjo G. & Villa M., 1997). As Medellín expanded its boundaries again in 1912, a group of local business elites known as the Society of Public Works was working to reinvigorate the city's urban planning efforts in pursuit of a modern, urban vision for the city. Led by local industrialist Ricardo Olano, this vision would be published the following year as the "Plan for Future Medellín" (*Plano de Medellín Futuro*) (Castrillón Aldana & Cardona Osorio, 2014). Another publication co-authored by Olano and fellow industrialist Jean Peyrat followed the plan's release in 1916, entitled the "Guide of Medellín and its Surroundings," and served to promote tourism and accelerated Medellín's business potential by noting the city's central location, climate, and existing business community (Restrepo Uribe, 1981). Furthermore, the guide's release amidst the Great War brought a wave of new investment in manufacturing industries to Medellín, with an even larger wave of industrialization and construction to follow during and after the Second World War. As a result, increasingly influential and often conflicting private business interests overwhelmed the municipality's authority to control or advance local planning efforts. As a result, during the first decades of the 20th century, Medellín's urban form was shaped almost entirely by unregulated, private development efforts. At the same time, this investment failed to

provide adequate housing for workers or those of the lowest socio-economic strata, and as such, drove the early stages of informal settlement at the urban peripheries. For example, in the early 1930s, private developers decided to locate the new private Catholic university campus west of the river (Naranjo G. & Villa M., 1997). As one of the first major private investments west of the river, the campus accelerated urbanization towards the west, forcing the most vulnerable populations to settle in the far western foothills in precarious settlements with little to no access to city infrastructure (Castrillón Aldana & Cardona Osorio, 2014).

Despite growing social and economic disparities, persistent rural violence combined with industrialization and hopes of a better life continued to drive a massive rural-to-urban migration, resulting in unprecedented social and demographic change in urban areas across Colombia. In response, Congress approved Law 88 in 1947, mandating Colombian cities with annual budgets greater than 200,000 pesos to establish their own comprehensive plan to guide development efforts for urbanization (Pombo & Camacho, 2009). This law is widely considered the first major step towards the institutionalization of urban planning practice in Colombia, a reflection of the dominant European and American models of planning practice at the time (Del Castillo & Salazar Ferro, 2001). The following year, the Valorization and Urbanism Board of Medellín contracted modernist architects and members of the International Conference of Modern Architecture (CIAM) P.L. Wiener and J.L. Sert of Town Planning Associates to create the city's new regulatory (comprehensive) plan.

Inspired by their colleague, Le Corbusier's travel to South America in 1929, Sert and Wiener were already engaged in nearly a dozen pilot and comprehensive planning efforts throughout the continent. Their plans advanced the modernist vision of the city as outlined in Athens Charter of CIAM, focusing on home, i.e. the physical habitat; work, the productive habitat; recreation, the social habitat; and circulation, the habitat of movement and communication (Schnitter Castellanos, 2003 ; Hyde, 2008). Rooted in the separation of distinct land uses, new residential construction was based on the development of the standard neighborhood unit, or the *unidad vecinal* (Hyde, 2008). The *unidad vecinal* promoted a more organized urban block structure resembling a contemporary reinterpretation of the colonial city grid with expansive housing blocks interwoven with larger institutional structures such as schools or community centers rooted in modernist visions of the city. Altogether, the collection of these individual neighborhood units would form larger city districts, known as *sectores típicos*, in order to constitute the new urban identity of the city (Hyde, 2008).

Initiated in 1948, the project consisted of four phases. The first phase involved an in-depth analysis of the current challenges facing Medellín and opportunities for strategic urban growth. The following year, Nel Rodríguez, Chief of the Office of the Regulatory Plan of Medellín (OPRM), participated in the second phase of the project, the creation of the pilot (vision) plan, a set of 20 alternative visions for Medellín supported by three volumes of research, which would officially be presented to the city in 1950 (Schnitter Castellanos, 2004). Following a contract extension, the city and consultants began phase three: the regulatory (comprehensive) plan and the directing (implementation) plan,

which expressly defined implementation roles for various municipal entities within particular regions of the city under a shared urban vision.

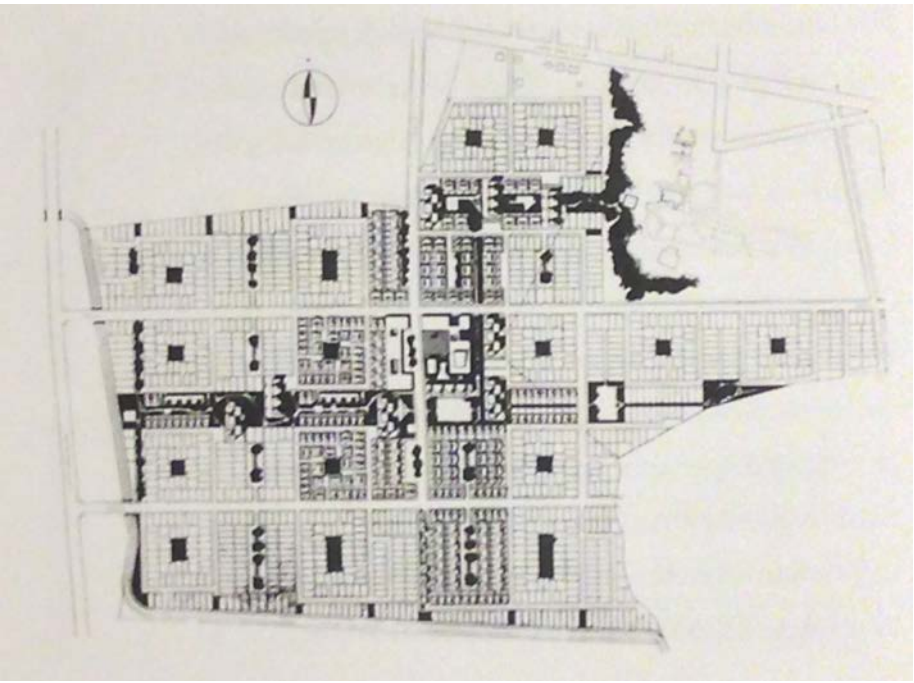

Illustration 3: One of Sert's Pilot Plans in Latin America (Hyde, 2008)

By early 1951, Medellín had approved the pilot plan and created a new planning office to implement the new regulatory plan. However, as public and institutional skepticism grew over the details of the regulatory plan, the unannounced exit of Nel Rodríguez as the chief of the OPRM halted progress of the plan. Facing increased urban violence and institutional instability, the federal government dictated the Extraordinary National Decree No. 0693, granting autonomy to Colombia's major municipalities to create new planning offices with expanded administrative powers in an effort to better enforce existing pilot plans through coordination with local OPRs (Schnitter Castellanos, 2004).

CITY PLANNING: THE SHIFT TO SMALL-SCALE PLANNING AND NEW PLANNING ENTITIES (1948 – 1978)

While this initial institutional restructuring provided some degree of expanded administrative powers, little to no legislative authority was granted to implement plan recommendations. Law 19 of 1958 brought planning authority one step closer to the municipalities by establishing departmental planning offices with technical capacity to conduct planning assessments and coordinate these studies with governor-led development initiatives in accordance with regulatory plans at the national level (Pérez Moreno, 2010). In Medellín this office was known as the Colombian Institute of Integrated Planning (INCOPLAN), a body which helped to augment the technical capacity of planners, bringing together students from the emergent academic discipline of planning and planning practitioners under a single organization (Pérez Moreno, 2010). Led by Mariano Ospina Hernández, INCOPLAN sought to promote rational, integrated planning to enhance the quality of life of all residents in the city.

While the idea of planning began to permeate various levels of society, the municipal planning office was pursuing further revisions on the previously adopted plan and approved an updated implementation plan for the existing comprehensive plan in 1959 more focused on actionable development initiatives (Castrillón Aldana & Cardona Osorio, 2014). However, by this time, 54 neighborhoods had been classified as precarious settlements by the city based on their environmental risk and vulnerability, with continued social and economic decline fueled by political violence between Liberals and Conservatives (Naranjo G. & Villa M., 1997). At the same time, a federal pact known as the National Front was implemented to alleviate political tensions and to promote more

moderate regimes by mandating that the two ruling parties were to equally share legislative control, with the Presidency shifting between parties each election cycle (Pombo & Camacho, 2009). This peculiar arrangement would complicate governance but also mark a critical pivot in the state model of planning towards the social and economic well-being of its citizens, drawing inspiration from Soviet models of state-controlled development and the United States' success with the New Deal and creation of organizations such as the Tennessee Valley Authority (Pérez Moreno, 2010). Ten years later, these international influences would prompt a major Constitutional Reform known as the Legislative Act 1 of 1968, an act which considerably democratized the institutional structure of Colombia, including such measures as the institutionalization of planning across the national, state and local levels (Pombo & Camacho, 2009).

As urban conditions continued to decline, Medellín moved in 1963 to divide the city into smaller districts, or *comunas*, in an effort to better address service provision and infrastructure improvements in these neighborhoods. The following year, the official count of informal neighborhoods had climbed to 85, with 25 located outside the existing urban boundaries. Despite these municipal actions, this upward trend continued throughout the next decade, with over 600,000 new residents moving into these and other informal neighborhoods, equating to roughly half of the city's population (Naranjo G. & Villa M., 1997). While the delineation of district boundaries failed to adequately respond to the particular social ties and topographical barriers present between communities, this initial division was an important paradigm shift in Medellín's urbanization process, moving from holistic master planning to smaller, sub-district planning and development.

Five year later, federal Law 66 was issued, expressly prohibiting the extension of infrastructure beyond the urban boundaries of a given municipality (Naranjo G. & Villa M., 1997). While this measure served to direct scarce municipal development funds towards the city's internal sub-districts, it also greatly limited the potential of the municipality to improve the quality of life for those citizens residing in informal settlements at the peripheries beyond the urban boundary.

Colombian society initially viewed informal settlement as a failure of moral, social and physical cleanliness, leaving most with the notion of the city as disorganized, unhealthy and dangerous (Naranjo G. & Villa M., 1997). As such, the federal government's stance centered predominantly on two strategies: advocating for agricultural reform and other policy shifts to incentivize farming in an attempt to reduce overall migration rates, and on the other hand, heavy-handed slum eradication measures, which ultimately led to further displacement in many of Colombia's major urban centers, including Medellín (Naranjo G. & Villa M., 1997). At the same time, there also existed a strong sense of "Christian charity" in Medellín for those residing in informal neighborhoods. As such, the city began to engage in neighborhood rehabilitation and social housing efforts in the mid-1960s, financed in part by the recently established Rotating Fund for the Rehabilitation of Neighborhoods and existing financial institutions such as the Institute of Territorial Credit (ICT) and the Central Mortgage Bank (BCH) along with major institutional actors like the newly-created Division of Rehabilitation of Housing, the Public Works Enterprise of Medellín and the OPRM in developing extended service provision plans (Naranjo G. & Villa M., 1997).

For example, under the direction of the OPRM, the ICT was crucial in funding notable projects such as the development of Carlos E. Restrepo, a master-planned worker's housing district, and large-scale workforce housing neighborhoods such as La Floresta, located in western Medellín (González Escobar, 2010). At the same time that this development was occurring, the public investment was also being directed towards the channelization of the Medellín River and several creeks to allow for more development potential, as well as towards the extension of major arterial streets outwards towards the western hillsides. Meanwhile, the EPM was also taking its first steps towards the upgrading of public infrastructure in informal settlements, including utilities such as sewer, water and electricity (Pérez Moreno, 2010). The rapid buildout of the most developable lands west of city center quickly drove up land prices and further exacerbated the housing crisis, especially following a heavy influx of poor, rural families into the city beginning in the 1970s (local planner, personal communication, July 04, 2017). With the city becoming increasingly chaotic and dangerous and the economy in a downward spiral, many planners consider this period the point at which the foundations of contemporary Colombian urban planning practice begins through the transition away from comprehensive plans towards sub-area and district-level planning and development. This shift was marked by legislation such as Law 61 of 1978, or the Organic Law of Urban Development, which codified the Integral Development Plan (PID) with a methodology favoring social and economic factors over physical planning considerations (Castrillón Aldana & Cardona Osorio, 2014; Pérez Moreno, 2010). While highly symbolic, the law ultimately did not have the legal authority necessary to acquire or

develop property, and as a result, failed to promote greater organization or significant change in development practices (Pombo & Camacho, 2009). By the 1980s, however, several important pieces of legislation would eventually codify these practices and would fundamentally change the way that Medellín conducts planning and development.

THE 1980S: TOWARDS MUNICIPAL AUTONOMY, REGIONAL TERRITORIAL ORGANIZATION AND THE LEGAL UNDERPINNINGS OF THE NEW CONSTITUTION

Medellín entered the 1980s as a society in crisis. Not only was "violence, terrorism and narcotrafficking" causing major problems, but the rate of "urbanization itself... a massive expansion of urban precarity, informality and poverty" was running unchecked "with very limited and weak local institutions and democratic control" (local architect, personal communication, July 31, 2017). From the mid-1980s through 2002, the Consultancy for Human Rights and Displacement (CODHES) estimates that heightened levels of violence were responsible for the displacement of over 2.9 million persons, driving predominantly rural households to relocate to the peripheries of major Colombian cities where they were able to find available land (González Escobar, 2010). Given the ubiquity of informal settlements during the era, ongoing housing formalization efforts were reframed not as a moral dilemma but rather as a question of public safety risk and social and environmental vulnerability (Arango E., 2001). Beginning in 1983, the Integral Neighborhood Improvement Program (MIB) was one of the first programs directly focused on the physical rehabilitation of housing for informal settlements (Torres Tovar, Atanassova Iakimova, & Rincón García, 2009).

Meanwhile, in the formally-developed city, industrial elites continued to drive the uncoordinated development of Medellín, with other illicit actors rapidly accumulating power and resources from involvement in narcotrafficking and arms trading in the emergent global economy (Leyva, 2014; Galindo A., 2001). Without a strong municipal authority to address the root causes of the crisis nor regulate urban form and development, a growing fear of personal safety resulted in a culture of enclosure and fortification that provided security only for those who could afford it. By the mid-1980s, Medellín was a "very closed society, very conservative, very Catholic, hardly democratic and very unconscious of the problems that [they] were generating" (local architect, personal communication, July 31, 2017).

Soon, however two important legislative actions were taken that would strengthen the state's ability to effectively plan, develop, and most crucially, address the dire circumstances brought on by the security crisis. In 1986, Colombia passed Law 14, one of the most consequential pieces of legislation in modern urban planning history. The law signaled a major move towards municipal decentralization by expressly granting municipal planning autonomy and discretionary resource allocation for advancing projects (Arango E., 2001). For the first time, the popular election of mayors began in Medellín, providing an opportunity for residents to vote for local representatives who could affect social and economic change. The same year, Law 1333 was adopted, reforming the Municipal Code to include new types of planning tools including street, public service and budget plans along with the existing comprehensive plan and PIDs (Pérez Moreno, 2010).

While the new legislation granted new rights and provided better representation at the local level, change was slow. At the end of the decade, federal Law 9, known as the Law of Urban Reform of 1989, re-established certain land management tools for planners and combined elements of both the physical and integral planning approaches in hopes of creating a more responsive model entitled the Municipal Development Plan (PDM) (Castrillón Aldana & Cardona Osorio, 2014). While the PDM successfully acknowledged the crucial role of local planning autonomy in response to ongoing social and economic challenges, the PDM model itself did not extend additional planning authority, and as such, failed to serve as an effective tool for planners (Del Castillo & Salazar Ferro, 2001). But significant institutional change was on the horizon.

THE 1990S: INFORMAL UPGRADING PROGRAMS AS THE PRECURSORS TO "SOCIAL URBANISM"

With persistent urban violence, the rise of power of non-state actors, and the economy in continued decline, the President of the Republic established President's Advisory Council for Medellín in 1990 to identify and address the city's most pressing urban issues through strategic planning initiatives. Many planners see this moment as providing the underpinnings of Medellín's eventual urban transformation. Under strong leadership and with few other alternatives to pursue, the President's Advisory Council represented the first time in Medellín's history that residents across all social strata joined together and discussed the problems plaguing the city, building a sense of shared identity and mutual trust (local architect, personal communication, July 31, 2017).

Until its disbandment roughly five years later, the council worked tirelessly to formulate ideas and agreements, but most importantly, cultivate leadership. In effect, the council served to "build citizenship" amongst a generation of future leaders who would be instrumental in Medellín's social, economic and physical transformation over the following decades (local architect, personal communication, July 31, 2017). With residents from all walks of life represented within the leadership, this administrative body acknowledged the importance of listening to others' needs in order to reach consensus. As such, one of the group's key recommendations was to ensure that moving forward, public institutions should continue to engage with communities (local architect, personal communication, July 31, 2017). This spirit of the public interest and collective action is the core value embedded in the first wave of legislation that would follow.

At the same time, the new Political Constitution of 1991 was also promulgated. A major overhaul of the original 1889 Constitution, the new Constitution fundamentally redefined Colombia's social, geographical and institutional characteristics (Galindo A., 2001). Most notable of these institutional changes was territorial decentralization, substantial fiscal restructuring, as well as the adoption of local and participatory planning practice (local architect, personal communication, July 31, 2017).

One of the first major citywide programs which emerged from the President's Advisory Council was the Program for the Integral Improvement of Subnormal Neighborhoods in Medellín (PRIMED) in 1993. PRIMED effectively established subarea and neighborhood planning practice, focusing on improving informally constructed neighborhoods. The pilot program, a cooperative endeavor with the City of Medellín and

KfW Bank of Germany, occurred between 1993 – 1997 (Velásquez-Castañeda, 2013). The pilot focused on self-built neighborhoods constructed during the 1970s and early 1980s, an area which incorporated roughly one-fifth of the population in Medellín at the time (Betancur J. J., 2007). The program was based in the belief that the violence and social decline in informal settlements could be reversed through new neighborhood infrastructure and strong state presence in these communities. The first phase led to important physical infrastructure enhancements but lacked the social investment of neighborhood residents. As a result, the program re-adjusted the methodology to better integrate community participation in the second phase beginning in 1998. However, PRIMED was discontinued by a new political administration in 2000, leaving several preliminary technical studies unimplemented (Betancur J. J., 2007).

During the latter half of the decade, Law 388 of 1997 or the Law of Territorial Organization established democratic participation and the creation and support of public space as part of the planning and governance framework. In addition, Law 388 introduced a new urban planning tool, the Territorial Organization Plan (POT). This tool reflected a shifting set of values, including a prioritization of urban systems thinking, based in interventions which seek to transform the built environment and natural systems in an effort to promote a more rational, equitable urban form (Del Castillo & Salazar Ferro, 2001). Law 388 worked to better integrate social, economic, and environmental systems in future territorial development, leveraging public participation and clear implementation objectives in the drafting of development plans. Furthermore, the urban and regional-scale land management focus and emphasis on rational organizational

strategies was supported by the recently enumerated rights and expanded municipal autonomy outlined by the new Constitution (Del Castillo & Salazar Ferro, 2001).

The first POT for the city of Medellín was approved in 1999, explicitly addressing public space, roadways, transportation, social programming and legal land tenure (Velásquez-Castañeda, 2013). In addition, this plan created another regulatory tool for planners to use, the Urban Regularization and Legalization Plan (PRLU), which sought to complement PRIMED's recent successes and the city's ongoing conflict between self-built housing without legal land tenure, dearth of public space, and social and environmental vulnerability. The PRLU model was the first which identified natural structural elements in communities across the city as the framework from which to build out a more comprehensive planning strategy. However, unlike the more socially-oriented goals of PRIMED such as public space development or housing and new social programming, the PRLU model measured success only in terms of the legalization of land tenure, appearing to value the collection of additional tax revenue over quality of life improvements (Velásquez-Castañeda, 2013). Ultimately though, the PRLU initiatives failed to move beyond the phase of diagnostics and projections, thereby limiting their impact on the built environment. Nevertheless, the next informal settlement improvement program would base their analysis and organizational framework on this model.

THE EARLY 2000S: THE RISE OF SOCIAL URBANISM AND THE PUI

In 2004, the PRLU officially replaced by the Urban Integrated Project (PUI) (Velásquez-Castañeda, 2013). In addition to re-centering the focus of informal upgrading

on quality of life factors, the major advantage of the PUI planning process is that these plans have dedicated economic resources to implement recommendations. Additionally, PUI projects have been largely de-politicized, with the Urban Development Enterprise (EDU) directing the planning process as an external, quasi-governmental entity that can ensure the continuity of projects over time, rather than shifting resources to new projects with each change of administration (local planner, personal communication, July 04, 2017).

Under the direction of Alejandro Echeverri, the EDU worked with the Fajardo (2004 – 2007) and Salazar (2008 -2011) mayoral administrations to establish the PUI as the principal planning tool for future development projects. These projects consisted of major physical interventions, including the creation of new mobility infrastructure and public spaces built with high quality design detail paired with social programming and institutional support (Sotomayor, 2015). The focus on strong and sustained community participation in the planning process along with the emphasis on achieving socially equitable project outcomes led Echeverri to coin the term ‘social urbanism’ upon the program’s inception, what today has evolved into ‘pedagogical urbanism’ (local planner, personal communication, July 04, 2017). As such, the term ‘social urbanism’ was defined as the practice of quality planning and design which enhances the environmental and economic viability of marginalized communities through, in part, the delivery of quality public spaces which generate tourism and spur local economic development (Echeverri, 2005).

For each PUI, the EDU first defines the area to be planned, followed by a preliminary geographic and socio-economic analysis. As was the case for the PRLU projects, each PUI is structured around either an environmental feature such as a stream or an artificial feature such as major mobility infrastructure (i.e. the cable car system). From this core element, staff then works with the community through a series of visioning workshops to develop the plan and implementation items. Ultimately, the final plan will recommend a combination of linear connections with secondary neighborhood centers featuring enhanced public spaces throughout to promote more "dignified and appropriate conditions" and connect local residents to major transit stations (local planner, personal communication, July 04, 2017). These new public spaces became vital community gathering places, giving the government a strong incentive to pursue such projects in order to further promote shared citizenship, community organization, and territorial control (local urban designer, personal communication, August 04, 2017; Velásquez-Castañeda, 2013). In addition, these public spaces and buildings have become emblematic of the linkages between citizens and the state as a "platform of encounter" (local urban designer, personal communication, August 04, 2017).

Similarly to the PRIMED program, the PUI has been effective in upgrading critical infrastructure in informal neighborhoods as well as in providing new, quality public spaces and vital mobility and community services infrastructure. However, the PUI still has not been able to provide adequate housing solutions for these marginalized communities due to the complicated nature of re-settlement and the time and oversight

required to implement a successful project over several political terms (local urban designer, personal communication, August 04, 2017).

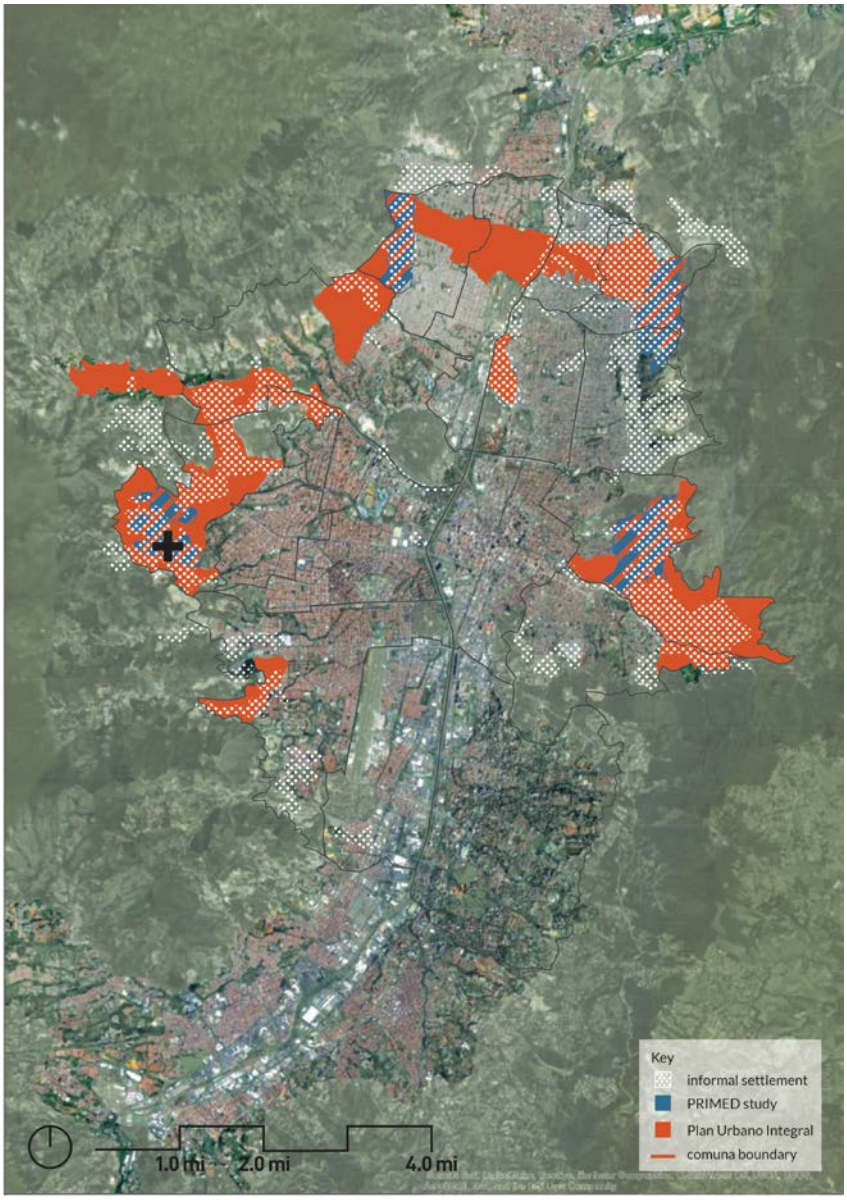

Illustration 4: PRIMED and PUI planning have targeted the urban peripheries. Map drafted by author. Data provided by the EDU.

Regardless, the PUI continues to be one of the most successful tools for contemporary planners working in informally constructed neighborhoods across the city. While receiving international acclaim for this socially-oriented planning model, some planners argue that the process of arriving at the PUI, rather than the model itself, was the factor that drove the transformation: the process of building citizenship and shared ownership in projects which advance socially, economically, and environmentally equitable outcomes in the name of the public good (local architect, personal communication, July 31, 2017).

CONCLUSION

This chapter has documented the evolution of planning policy and practice in Medellín from the city's foundation to present day. Until the turn of the 20th century, population growth and urban expansion was nearly non-existent. Early attempts at modernization were led by a group of local industrialists known as the Society of Public Works, with several large-scale planning efforts undertaken in the first decades of the 1900s. While successful in gaining new business investment and industry, the city's ability to plan for its rapidly increasing population and to navigate the disparate private business interests in the development arena resulted in private interests taking the lead role in development, often to the detriment of the poor rural migrants who were forced to settle at the peripheries of the city where land was available.

Towards the mid-20th century, Wiener and Sert were contracted by the city to produce a Regulatory Plan to facilitate the organized urban expansion of Medellín in

accordance with modernist and “garden cities” planning principles. However, the city’s continued lack of autonomy resulted in the plan remaining largely unimplemented. Private interests continued to lead isolated and uncoordinated development efforts, with an ever-increasing number of marginalized residents forced to settle in increasingly precarious regions of the valley’s foothills.

By the 1980s, the city’s inability to control growth and development came to a head, with violent non-state actors rising to power in poorly controlled regions of the city. From the mid-1980s until the mid-2000s, Medellín worked tirelessly to increase its regulatory authority, first pursuing a number of top-down initiatives aimed at incrementally upgrading precarious settlements with new urban infrastructure and later more participatory strategies to re-integrate poorly accessible regions with new mobility infrastructure and community services under the goal of achieving increased social equity under an approach known as ‘social urbanism.’ The following chapter will first briefly review the PUI San Javier implemented under Medellín’s ‘social urbanism’ framework followed by an in-depth analysis of the findings of this thesis study focused on one particular project encompassed within the plan: the public escalators and mid-hill viaduct.

Chapter 5: Physical Planning and Urban Design in Comuna 13: San Javier

INTRODUCTION TO COMUNA 13: SAN JAVIER

Over the last 50 years, the San Javier commune of Medellín has experienced a violent and turbulent history. Emerging from a largely uninhabited region of the western foothills of the Aburrá Valley into a dense, urban district marred by war and violence, San Javier is today touted as a symbol of Medellín's social transformation and the new socio-economic opportunities brought about by improved security conditions and enhanced public mobility infrastructure. Sotomayor identifies three distinct periods of official state policy in San Javier: first, a period of limited state visibility and discretionary interventions from 1978 – 2002, followed by increased securitization and (para)militarization by the state from 2000 – 2003, and finally, a shift towards social urbanism (today known as 'civic-pedagogical urbanism') initiatives from 2004 and into present day (2017).

The first settlement in the region of the Aburrá Valley which is today known as San Javier was a rural community called El Salado in the early 1800s. Located adjacent to several salt mines and pottery workshops, the town served as a modest trading post for products in transit between Medellín and Santa Fe de Antioquia (Aricapa, 2005). While the town would continue to function in isolation from the larger urban core for over a century, a new, planned working-class neighborhood of San Javier would eventually extend into this territory in the mid-twentieth century, connected to the La América neighborhood of Medellín by an electric streetcar. The extension of the San Javier

neighborhood propelled the rapid growth of the region, comprised predominantly of unregulated and irregular developments, known in Colombia as “pirate urbanizations.” One such neighborhood, known as Veinte de Julio, arose in the 1970s to the south of San Javier, extending to the base of the western foothills. The neighborhood quickly occupied the lower plane of the valley, forcing over 5,000 families to move into the foothills in less than five years in what would become one of the fastest urbanizations observed in modern history (Aricapa, 2005). This wave of urbanization includes the neighborhood of focus for this study, Las Independencias I. Unfettered growth resulted in increasingly precarious settlement patterns and a growing number of households without access to basic public services. In response, residents began to fight against the City’s official stance of illegitimacy, advocating instead for the extension of City services.

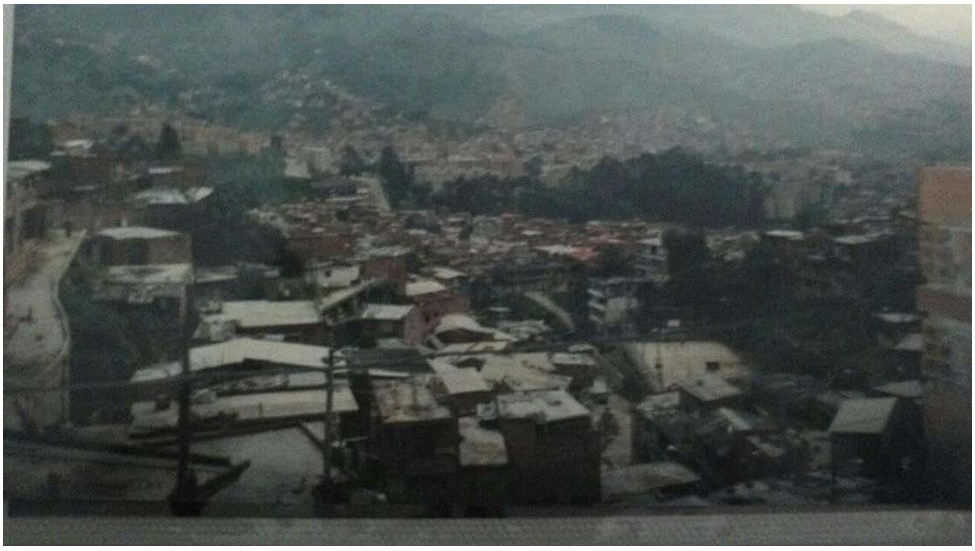

Figure 2: Las Independencias in the mid-1980s. Photo courtesy of Nelly Corrales.

Moreover, these neighborhoods, unlike other “pirate urbanizations” to the north, are physically hidden from sight due to the sinuous and rugged topography (Aricapa,

2005). This topographical condition combined with the state's continued neglect would lead to the proliferation of armed, non-state groups in the region. Along with the Reagan administration's escalation of the War on Drugs, increased state-led military interventions began in Colombia in the 1980s (Bagley, 1988). Facing this new pressure, the Medellín cartel responded by recruiting and contracting paramilitary and other non-state armed groups in lower-income communities to help fight for control of the largely ungoverned peripheries of the city (Moncada, 2016). In San Javier, these armed groups consisted primarily of *bandas*, independent groups of young men who sought to maintain economic or territorial control through acts of violence and intimidation; *milícias*, community-led security/stabilization forces which sought to respond to local security concerns; *combos*, disparate local street gangs engaged in less organized criminal activities such as armed robberies and burglaries; and *paramilitares*, highly organized leftist and rightist non-state entities who began to enter the region in the mid-80s in large numbers (Moncada, 2016; Sotomayor, 2017). Residents learned how to "read the context" of the neighborhood to minimize violent conflict, avoiding crossing the "war trenches" or particular streets or alleys commonly occupied by paramilitary or other armed groups (local artist, personal communication, July 09, 2017).

As violence increased throughout San Javier during this prolonged period of state absence, the City sought to shift its policies to more effectively address the city's security problems. In this spirit, the first democratic local mayoral elections were conducted in 1986, marking a necessary disruption of the established networks of clientelist relations, followed soon thereafter by the new 1991 federal Constitution and the President's

Council in 1993 (local architect, personal communication, July 31, 2017). With these three major policy initiatives, many new politicians saw a critical opportunity to deepen community participation in local governance in the city's peripheries by, in part, extending new social programs and public infrastructure to improve the livelihoods of those at the margins (Moncada, 2016). However, others were convinced that military intervention was the only solution to the geographies of violence which had firmed planted themselves within San Javier. Following a series of smaller-scale military inventions in the commune in 2002, President Álvaro Uribe authorized Operation Orión, a targeted military raid involving over 1,000 soldiers in a handful of communities within San Javier including Las Independencias I. The military assault, which aimed at removing the existing criminal organizations present in the area, detained over 350 and left 10 civilians dead, 38 injured and four more missing (Amnesty International, 2005).

While many considered the intervention successful in disrupting the existing networks of territorial control, some argue that the state was working in coordination with paramilitary organizations at the time to impose a strict system of surveillance and daily curfews imposed by public armed forces, leading residents to continue to experience heightened levels of violence throughout the early 2000s (Amnesty International, 2005). As a result, the City decided to inject more invesment into social programming and new infrastructure throughout the commune through the drafting of an Integrated Urban Plan (PUI) in San Javier.

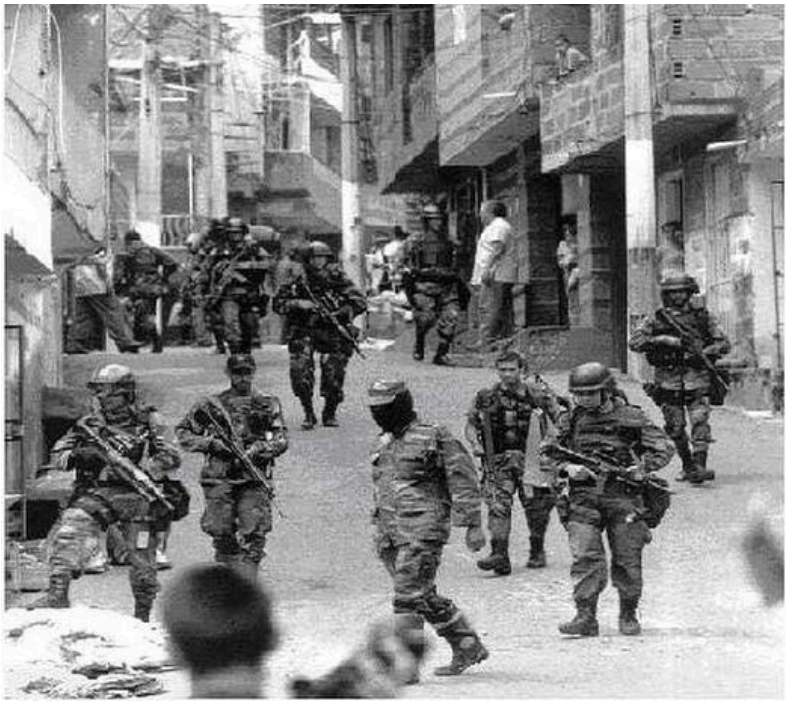

Figure 3: Military patrols pass through Las Independencias during Operation Orión. Photo courtesy of Jesús Abad Colorado.

PUI SAN JAVIER

The implementation of each PUI typically involves the "recuperation of public space through the introduction of urban promenades and sidewalk improvements [as well as] the creation of parks, small squares and the restoration of creeks" (local planner, personal communication, July 04, 2017). As such, every PUI is structured by a physical element: a natural component such as a major creek or an artificial component like the Metrocable. Planners seek to link new public spaces into each structural element in order to create a larger, interconnected system which would enhance resident mobility.

The first task of the PUI planning process is to define the territory associated with the intervention. Establishing the projects boundaries involves an extensive mapping and

analysis process, assessing a wide range of social indicators which will then be used to identify project goals with the community. In the San Javier PUI, the “K” Line suspended cable car, slated for construction in the northern region of San Javier, was designated as the structural element from which all other projects would be linked. However, during implementation of the cable car project, it was determined that other areas of San Javier were in greater need of resources. As a result, future projects were proposed for the opposite edge of the commune in the neighborhood of Las Independencias and its adjacencies (local planner, personal communication, July 04, 2017). Given the remote location of the region, the first goal of the PUI was to facilitate connections through an inter-connected system of public space projects to allow marginalized residents to safely descend the hillsides to the San Javier Metro Station and from there, disburse into the greater city (local planner, personal communication, July 04, 2017).

While project forumlation is underway, planners are simultaneously working to “socialize” the project to neighborhood residents, going door-to-door, holding community information sessions, and speaking with neighborhood leaders to inform residents about the planning process and to call for community participation in the project (local planner, personal communication, July 04, 2017). In San Javier, planners engaged children in the community as representatives of the EDU during this process to conduct community outreach for the visioning workshops and community meetings. Dressed in white EDU t-shirts, children walked with EDU employees throughout the neighborhood. One planner with the EDU explains that the children “stayed in their neighborhood and weren’t walking out of fear” but when they were able to cross these invisible borders for

the first time, the kids felt like “superheroes” in their t-shirts (local planner, personal communication, July 04, 2017).

Following these meetings, planners work to “codify” the ideas gathered into a “technical language, to planning, to technical designs and architectural designs” and bring them back to the community for design visioning in workshops known as *talleres de imaginarios*. To further promote community ownership of the project, a certain percentage of the implementation workforce is contracted from the neighborhood and a series of workshops is held to educate residents on how to use, maintain and operate the new spaces provided (local planner, personal communication, July 04, 2017). As one planner puts it “the sense of ownership is great because [residents] feel useful in each part of the project from the planning, the design, the implementation and sustainability” resulting in long-term upkeep which maintains quality public spaces (local planner, personal communication, July 04, 2017).

Ultimately, the PUI in San Javier was conceived, in part, as a way of recovering the territory from the ongoing violence between urban gangs and the military police (local planner, personal communication, July 04, 2017). The state’s absence over such a long period in San Javier had led to a great distrust of the state; in fact, when the implementation process for the San Javier PUI began in 2010, the construction crews decided to bring in military police to accompany them into the neighborhood to work (local planner, personal communication, July 04, 2017). A planner at the EDU notes the role of the urban form in perpetuating violence in the neighborhood. “The form of the neighborhood has been very, very dense, with very narrow alleyways which were heavily

appropriated by delinquent gangs" with "criminal activities borrowing those hidden spaces" allowing them to "direct these territories to their liking" (local planner, personal communication, July 04, 2017). One resident explains that "coexistence can't be found in one of the alleyways up there. Coexistence can't occur because you're so confined" (local artist, personal communication, July 09, 2017). Given the challenges, planners decided that urban design and planning could make a noticeable impact in the quality of life of residents. One planner explains:

> *That is what we wanted for this project, to break down these invisible borders. And the success of the public escalators is that those from the lower half couldn't ascend and those from above couldn't descend, and the breadth was the same. Las Independencias I couldn't pass over to Las Independencias II and the opposite. So what did we do? We did two projects, more than just concentrating them in a node or park, we did linear projects like the public escalators, and we broke down those borders between those above and below. And in the upper half, we did the viaduct to break down Independencias I and Independencias II. Furthermore, today we're executing other projects to continue connecting these territories* (local planner, personal communication, July 04, 2017).

This strategy clearly reflects the same 'dispositional spatial rationality' that other states have historically pursued in response to a morally-inferior population, using "rational" spatial order to shape and encourage certain desirable behaviors for residents (Huxley, 2006). As such, Knox (1984) moves beyond the analysis of the physical form of buildings to consider the social networks, economic structures and larger urban systems

which are impacted from these large-scale planning and urban design interventions (as cited in (Imrie & Street, 2009).

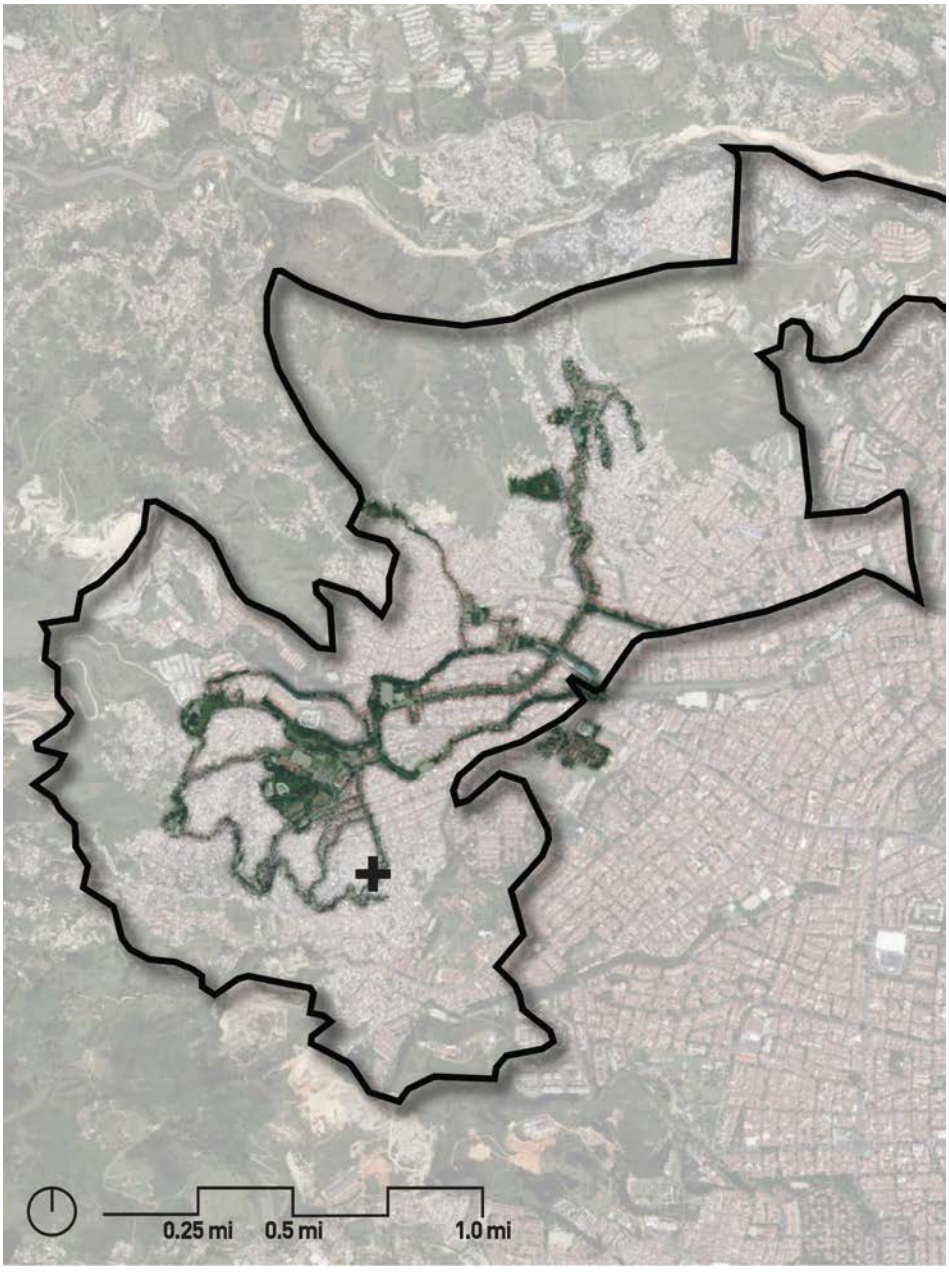

Illustration 5: Planned projects under PUI San Javier. Map by author. Data provided by the EDU.

ANALYSIS: PHYSICAL PLANNING STRATEGIES AT THE URBAN SCALE

Creating new, accessible neighborhood social service hubs

One of the primary strategies of delivering vital community services is through concentrations of programs in neighborhood "centralities" or activity nodes which each have their own unique contributions to the community. In the following, I foreground the landscape of spatial connections which facilitate multi-modal mobility between the study site in Las Independencias I and the mass transit system, which grants access to the greater city of Medellín. By calling out each of these centralities, linkages between the state and the citizenry can begin to be drawn.

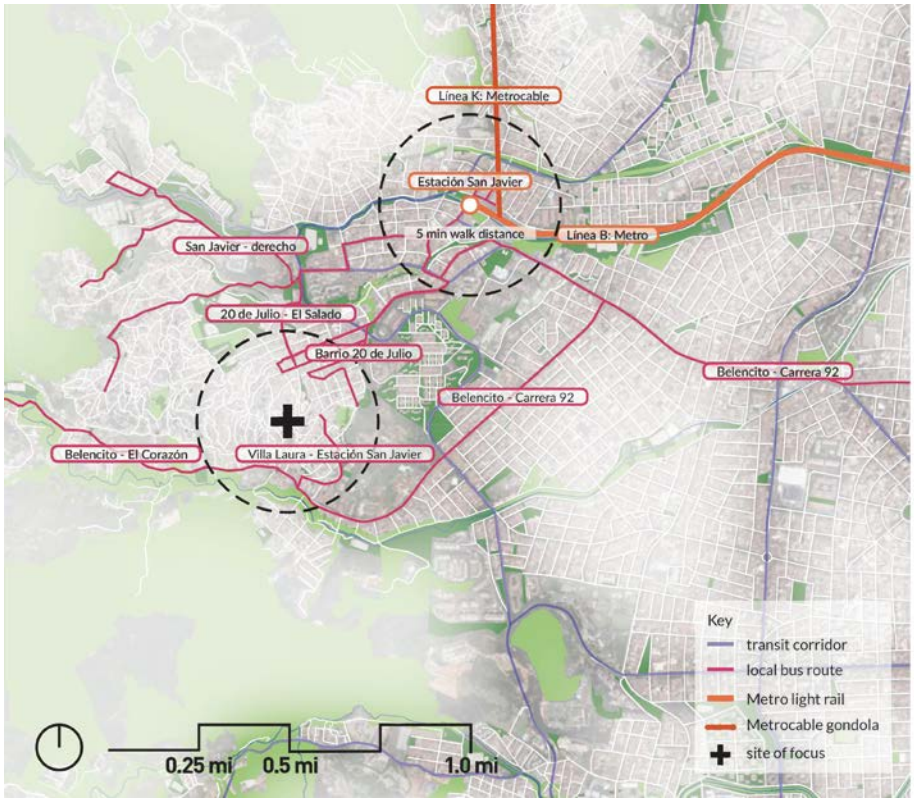

Illustration 6: San Javier mass transit system. Map by author.

Figure 4: San Javier library park provides quality public space to local residents. Photo by author.

At the sub-regional scale, the San Javier Metro Station functions as the principal mass transit node for the commune of San Javier. The station integrates the terminal stop of the “B” Line of the Metro light rail, the beginning of the “K” Line of the Metrocable suspended cable car system, as well as integrated local bus routes which connect peripheral neighborhoods to the regional transportation hub. Metro Police constantly surveil the platforms, ensuring that passengers adhere to proper Metro etiquette and that criminals do not take advantage of crowded platforms during peak rush hours. Connected via elevated walkway to the San Javier Metro Station, the Presbítero José Luis Arroyave (San Javier) library-park rests across the street upon a small hillside at the heart of the commune. The library-park provides not only quality public spaces including a community garden, ball fields and sitting areas, but also nearby educational institutions and on-site social service programming such as a healthcare center and the local

economic development center (CEDEZO). The iconic architecture demonstrates the state's interest in promoting education and community cohesion in the region through the provision of quality public spaces to encourage coexistence.

Toward the west, the Centralidad Antonio Nariño acts as a smaller neighborhood center which provides educational spaces as well as recreational amenities integrated with housing at the end of the Paseo 99, San Javier's primary commercial corridor. Leveraging a large, flat site at the base of the western foothills, this neighborhood service center responds to the topographical constraints which limit the potential to build larger service centers within the mountainous and densely populated far western neighborhoods of San Javier.

A few blocks to the southwest in the 20 de Julio neighborhood, the Casa de Justicia 20 de Julio provides neighborhood residents access to legal services related to human rights, domestic violence and local development and environmental cases. The main objective of this service is to promote a culture of civility between neighbors in settling disputes, as well as to strengthen community participation in formal institutional organizations. Public spaces and the 20 de Julio school are also incorporated into the smaller community hub. From this more local scale, smaller institutional buildings such as the local police substation CAI San Miguel sit perched in the foothills overlooking the Casa de Justicia and the neighborhoods of 20 de Julio and Las Independencias, providing police coverage for the area with frequent motorcycle and foot patrols.

Figure 5: 20 de Julio Park is one of the neighborhood's primary open spaces. Photo by author.

Finally, at the smallest scale, the presence of the state is articulated through such community infrastructure as the 20 de Julio Park, Peace Park and ball fields at the base of the foothills, articulating the threshold of the boundary of 20 de Julio with Las Independencias as the vehicular roadway gradually narrows as it winds up the hillside and terminates with a traffic circle. From here, the Las Independencias Educational Institution greets pedestrians at the foot of the public escalators, with another multi-use services building for the public escalators resting at the end, thus bookending each edge of the escalators and demonstrating a clear threshold of control along the entirety of the corridor.

Figure 6: A new educational center (left) was incorporated into the public escalator project to provide additional community programming. Photo by author.

Re-integrating and connecting communities

These centralities and public buildings, while scattered across the commune, are deliberately connected through larger public space systems such as streets, linear parks and other mobility infrastructure. In addition to enhancing connectivity throughout the neighborhood and better integrating residents with community services, these linear connections between larger community nodes were seen as a means of disrupting existing social boundaries, or *fronteras invisibles*, by re-integrating disparate communities once in deep conflict with one another.

The largest urban gesture in this sense is the *Paseo 99*, or 99th Street promenade. *Paseo 99* serves as the principal mobility axis in the central sectors of San Javier, connecting the San Javier Metro Station to the Antonio Nariño neighborhood center

through ample pedestrian zones and vehicular traffic lanes. As such, the street is also an important commercial corridor for local businesses, with high pedestrian and vehicular traffic throughout the work week. Aside from these local shopfronts, informal vendors congregate around the entryway to the Metro station, selling fruits and vegetables during peak hours. Other vendors selling snacks and pre-prepared foods gather at the far end of the street within the neighborhood center where they cater to students and families who are coming and going from school, or who are enjoying the nearby ball fields and playgrounds. Additional street vendors cluster near the entrance to the parish in small kiosks rented out by the municipality, while unlicensed street vendors remain highly mobile, constantly moving to avoid confrontations with police along the highly controlled corridor.

Within the neighborhood of Las Independencias, the purpose of these linear interventions in terms of effecting social control becomes even more evident. In the sector of Las Independencias I, two major linear interventions work to facilitate vertical mobility and horizontal mobility and the re-integration of communities once at odds with one another. The vertical element is comprised of the public escalators. The upper and lower half of the neighborhood have only been connected by a single steep, narrow stairway. As the only means of entering and exiting the neighborhood, the space historically acted as a *frontera invisible*, experiencing extreme levels of violence as a major conflict point between warring sub-sectors of the neighborhood (neighborhood resident, personal communication, July 13, 2017).

Illustration 7: Limited accessibility intensified violence between opposing factions along major neighborhood corridors. Map by author.

Similarly, at the upper terminus of the public escalators, a mid-hill viaduct spans transversally across the hillside to articulate horizontal connectivity and re-integrate the various sectors of Las Independencias. Las Independencias I and Las Independencias II, separated by a high ridge line up their center, were also once at war with one another. The alignment follows a once fragmented set of narrow sidewalks and stairways which jogged haphazardly across the mountain face, leaving the opportunity for opposing street gangs to prohibit free movement and to exert control. The new connection provides a continuous pedestrian, bicycle and motorcycle connection along with pockets of seating and smaller public spaces.

Figure 7: The mid-hill viaduct remains quiet during the early morning hours. Photo by author.

The construction of these new public spaces initially exacerbated violence, as local armed groups fought for control of the newly re-defined territories. But eventually, violence would subside as the winners claimed their territory and brought the scene back to order. A lifetime resident and local shop owner explains the changes in criminal territories as a result of these interventions, noting that despite the weakening of organized criminal organizations, local gangs continue to struggle to maintain their turf and the sale of drugs still permeates the community, only now more hidden behind more formal fronts and out of plain sight (local businessman, personal communication, July 18,

2017). It is within this context of blurred and hidden geographies of violence and territorial control that I present the findings from my thesis research.

Figure 8: The public escalators ascend the steep terrain of Las Independencias. Photo by author.

ANALYSIS: URBAN DESIGN STRATEGIES AT THE SITE SCALE

Critical Assessment of the Public Escalators and the Mid-Hill Viaduct

Platform design and form

The public escalators, completed and opened to the public in 2011, consist of six interconnected flights which traverse a total length of 130 linear meters (~425 feet), rising 40 meters (~130 feet) up the steep hillsides of the sector of Las Independencias I and replacing some 300+ stairs which once occupied the space (Alcaldía de Medellín,

2014). Along each flight, concrete stairs flank one or both sides of the escalators, with small gardens planted with decorative vegetation adjacent to the stairs where space allows. Between each flight of escalators lies a “platform” or small square, each with its own unique scale, dimensions, and material and social character. While informal common spaces act as the ‘third spaces’ for neighborhood residents, the escalator system and its platforms serve as ‘fourth spaces’ that facilitate informal social interactions between local residents and international tourists (Simões Aelbrecht, 2016).

Figure 9: Prior to the introduction of the public escalators, a street promptly terminated at the foot of the staircase. Photo courtesy of the EDU and the Alcaldía of Medellín.

As noted before, the space which is today occupied by the public escalators was one a narrow, winding stairway which climbed up the hillside. One resident describes the character of this space in detail (neighborhood resident, July 25, 2017). They recall that

from below moving upward, Carrera 110 terminated abruptly one block higher than the newly built traffic circle. The narrow vehicular lane of this street was framed on one side with a staircase in very poor condition, as most of the neighborhood residents had to take this staircase to leave or enter the vast majority of the neighborhood sector. At the end of this street, a community kitchen provided meals to neighbors in need, located where the current educational center stands. From this point, a steep staircase began to wind its way up the slope, first intersecting with a transversal alleyway approximately where Platform 3 lies today. This intersection was once the heart of the neighborhood. Long-term residents explain that a private home at the corner of this intersection used to sell household goods and other basic necessities to neighbors, saving residents the long – and often dangerous – walk down the hill to purchase items at the grocers and markets at the base of the hillside near 20 de Julio (neighborhood resident, July 25, 2017).

From this central intersection, the stairs rose even more steeply to another major alleyway intersection, splitting in two directions to provide critical access to many homes in the sector. Above this point, the stairway continued, but serviced a much smaller number of homes, as the topography of this portion of the sector prohibits dense construction. Eventually, these three routes all continued uphill to arrive at the space which is currently occupied by the viaduct. Above the viaduct, stairways have been re-constructed, but generally follow the same paths and maintain similar character as before the PUI projects were implemented.

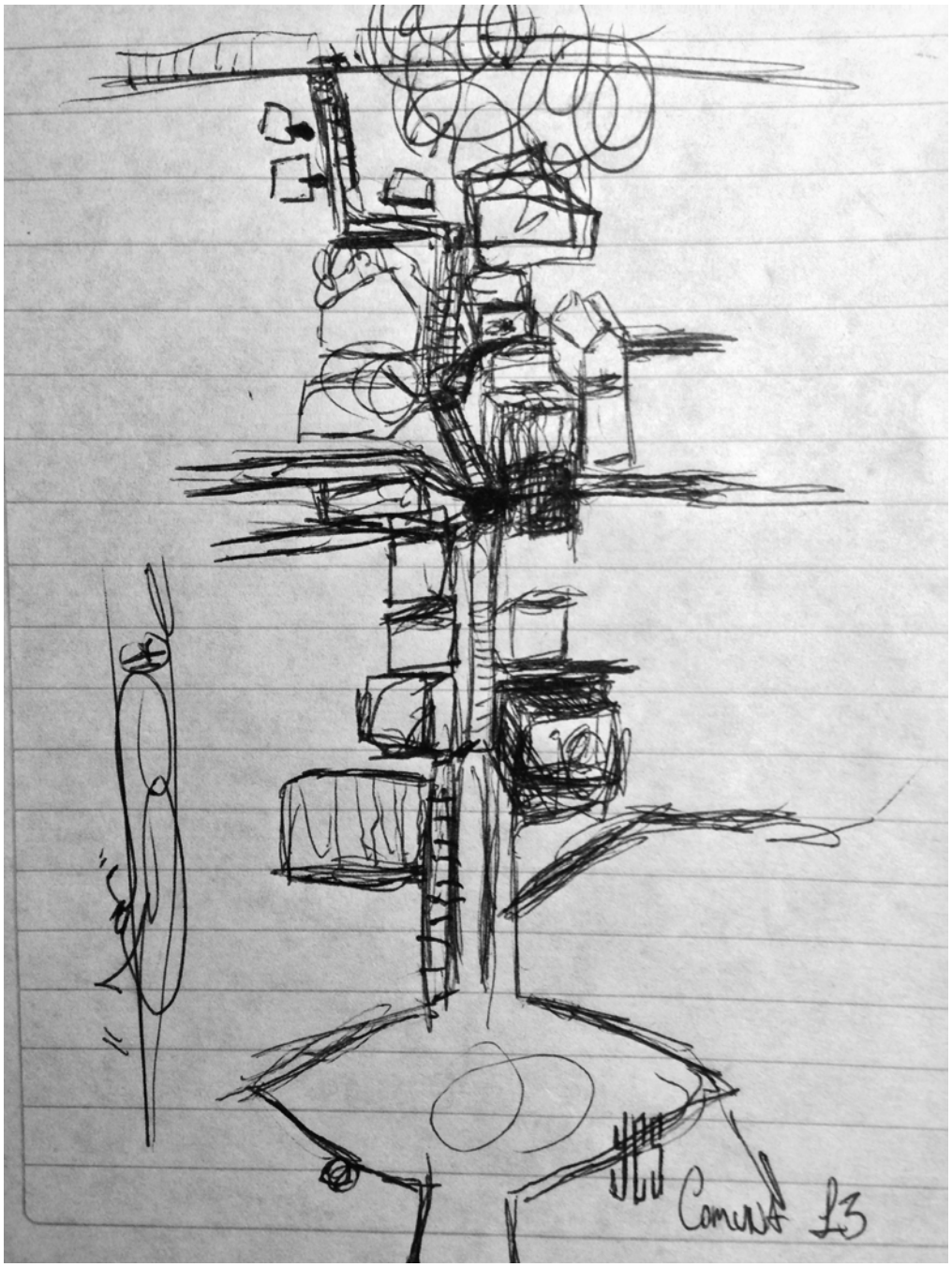

Illustration 8: A hand sketch of the historic neighborhood form by local resident and artist, Yeison Serna.

However, while the path of the escalators roughly follows the historic path of the stairway, the introduction of platforms throughout the system has created new spaces of encounter. Responding to the tight-knit urban fabric (informal spatial typologies) of Las Independencias I, these new spaces also experience a certain degree of congestion and intimacy whereby residents must often stop and wait or slow down for others passing through narrow spaces, generating potential opportunities for direct or indirect social interaction. The findings below will present a short overview of each of these platform's material and social characteristics, followed by general conclusions about the public escalators at the end of this chapter.

Up two short flights of stairs from the newly built traffic circle, Platform 1 lies at the base of the public escalator system. Measuring approximately 10 meters wide by 4.5 meters deep, Platform 1 is one of the larger and most populated spaces along the escalators. Similarly to the other platforms, the ground plane consists of poured concrete with textured, removable drainage tiles lining the edge of the entryway to the escalators. Residents pull their motorcycles up to -- but not inside the platform -- and park them along the railings. A fixed wooden bench and chair line the northern edge of the platform along the railing, both facing the escalators. Throughout the day, vendors and their friends and family occupy these seats and set up awnings and tables to display crafts and souvenirs for sale.

Figure 10: Platform 1 lies at the base of the public escalators. Photo via GoogleEarth.

On rainy days, lines are run from these temporary awnings to the hood of the escalators so that plastic can be draped across the depth of the platform to keep it relatively dry. A handful of other local vendors sell fresh potato chips, sausage and potatoes and other snack items. A small, metal trash bin collects many of the tiny toothpicks, plates and candy wrappers that residents and tourists toss after use. Two small businesses, a local bar and an ice cream shop also selling crafts and souvenirs, front the platform on its southern edge. Patios for each of these businesses spill out into the platform but are clearly delineated with metal railings. Patrons stationed on these patios communicate back and forth with vendors and others on the platform, although few people actually congregate in the middle of the platform due to the high traffic of the area. On the opposite side of the escalators, the lower level of the educational center frames the platform but does not provide public access.

Figure 11: Platform 2 fronts the entrance to the educational center. Photo by author.

A short flight of stairs rises one story alongside the first set of escalators to Platform 2. The narrow approach to each flight of escalators functions as a micro-threshold which often requires physical negotiation with strangers, taking turns entering the moving stairway (Simões Aelbrecht, 2016). The platform is a wedge 10 meters long with a maximum depth of about 4.5 meters. At its widest point, the platform opens up towards the entryway of the educational center, and just beyond it connects to a larger neighborhood alleyway to the northwest with a small landing located between two half flights of stairs. At its opposite end, a small alley jogs a short distance east to provide access to a small handful of homes with no other outlet. Private and public gardens frame much of the southeastern edge of the platform, including a large residential patio with

household medicinal plants and several small plots with mid-size shrubs and plants. The western edge is framed entirely by a high retaining wall currently painted with the image of a mother and her child. The piece is often discussed as part of daily tours, but groups rarely linger in the space much longer than the time needed to hear the piece's history and to snap a quick photo. Residents also tend to pass through the platform rather than gathering in the space. However, when the educational center has after school classes and programming, the platform is activated with children running in and out of the building, mothers chatting with each other during intermissions and students and friends hanging out and gossiping after class. Because this space relies entirely on the presence of an event to generate social vibrancy and interaction, Platform 2 does not meet the criteria of a "node" according to Simões Aelbrecht. The author states that nodes "have to become more than mere circulation spaces," characterized first and foremost as spaces of social interaction (2016).

From Platform 2, two separate stairways lined with a long, narrow planter box with tropical flora ascend alongside the escalators to provide access to adjacent households. This long flight, some 20 meters, connects with Platform 3, the smallest platform in the escalator system. A slender wedge measuring some 7 meters long by 3.5 meters at its deepest, the space is surrounded by dense two- to three-story housing on all sides and connects to two narrow, adjacent alleyways with a short flight of stairs greeting each side of the platform. As the intersection of the two longest escalator flights and two major alleyways, the platform receives a high amount of pedestrian traffic given its size.

Figure 12: Platform 3 lies at the heart of Las Independencias I. Photo by author.

As a result, many food vendors have set up their operations in these tight quarters hoping to catch passersby with to-go snacks such as *churros*, *empanadas* and *plátanos maduros*. In this way, Platform 3 maintains its social role as the heart of the community, full of vibrant neighborhood life despite the material space contributing very little to this reality, and perhaps even inhibiting its full social and economic potential.

Another 20-meter flight of escalators lined with separate stairways and small garden plots on either side terminates at a mural wall on Platform 4. As the unofficial "halfway" point of the public escalators, Platform 4 is one of the largest platforms in the system, measuring approximately 60 square meters. The irregular dimensions of the

platform most closely resemble a pentagon with two radial edges extending towards the up/down escalators to the northwest and southeast, connecting with a small residential alleyway and a larger neighborhood alleyway.

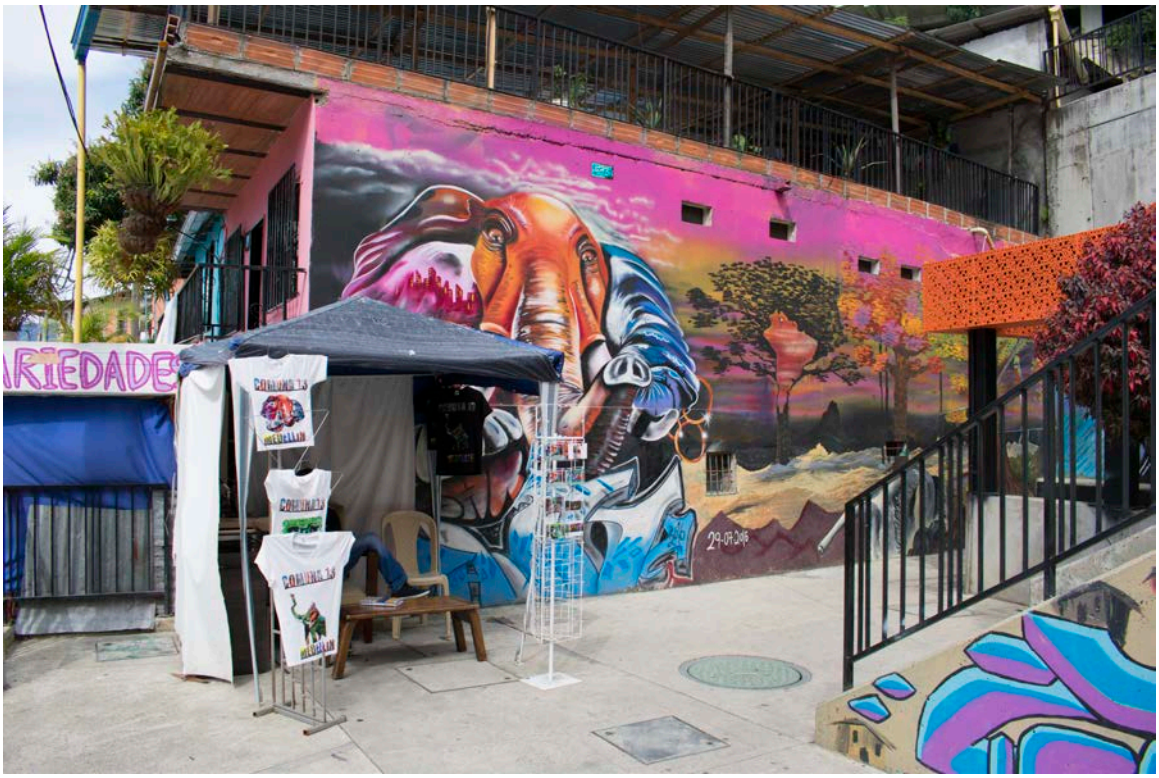

Figure 13: Platform 4 is the largest public space within the interior of Las Independencias, hosting a variety of users throughout the day. Photo by author.

The layout of the platform is such that one is forced to rotate and move through the length of the space, rather than just to take a few quick steps onto another flight. This movement creates a need to negotiate pathways during high traffic periods, often resulting in residents avoiding large crowds of tourists at Platform 4 altogether. A fixed wooden bench and two chairs as well as a metal trash bin follow the northern edge of the platform along the railing. In the morning and late afternoon, when the platform isn't

completely bathed in sunlight, several older residents gather on these benches and chat with the Escalator "Ambassadors" stationed there. The majority of the frequent users of Platform 4 are all extended family who treat the space almost like their outdoor living room. At other points throughout the day, the platform remains underutilized.

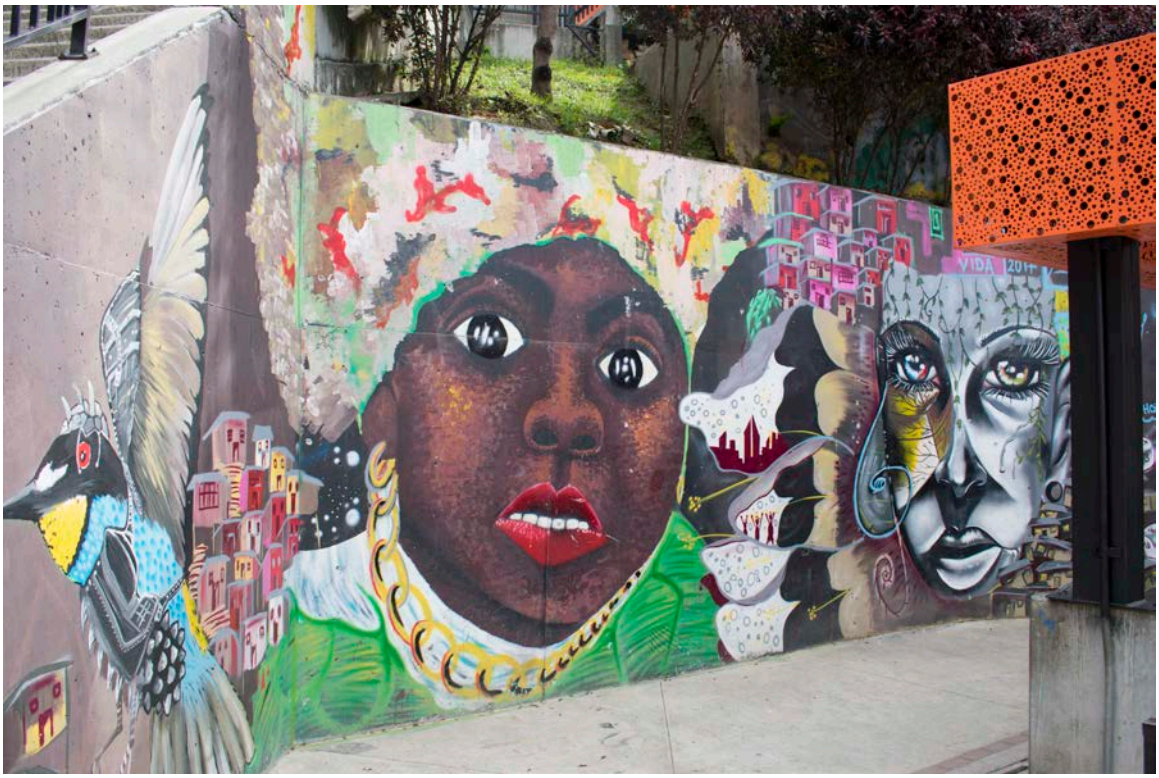

Figure 14: Murals depicting the shared Afro-Colombian identity and turbulent neighborhood history of Las Independencias. Photo by author. Murals by Yesgraff and Chota 13.

Along the entirety of the southern and eastern edges of the space, high retaining walls host some of the community's most significant murals, depicting themes related to memories of the neighborhood's violent past, lives lost, and the strength and resiliency of its residents moving into the future. These murals are a frequent stop on neighborhood tours, acting as a cultural prop on the platform which works to organize many other social

interactions (Simões Aelbrecht, 2016). Despite the presence of a larger public space, the lack of shade paired with the irregular shape of the platform tends to deter residents from occupying the space too frequently. A t-shirt and souvenir vendor who set up every morning with a full shade structure is the exception to the rule. However, a popular neighborhood coffee shop has begun to appropriate the alleyway leading from their shop to the platform in an effort to leverage the influx of tourists who visit during one of the main guided tour stops in the neighborhood.

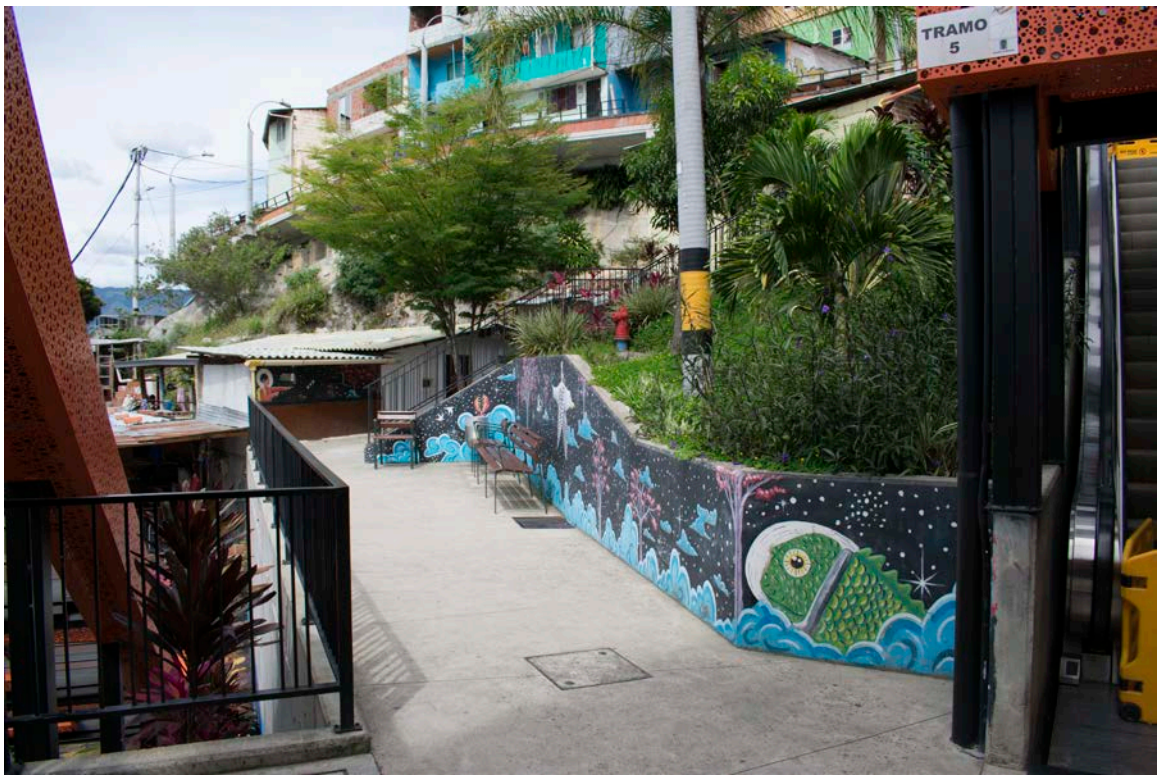

Figure 15: Platform 5 provides the first designated lookout point in the escalator system. Photo by author.

The next flight of escalators climbs the edge of Platform 4 to arrive at the base of the public escalator community building. Platform 5, a narrow, linear space, measures

roughly 16 meters long by 3 meters wide. The platform runs parallel to the escalators (and the southern edge of Platform 4 below) to provide a lookout point over a large portion of the neighborhood and adjacent hillsides. While at first glance, these lookout points may seem like they cater less to residents, Whyte (1980) and Gehl (2011) stress the importance of providing a variety of sight lines when layering activities vertically to encourage safety and levels of social activation. On its southern edge, there is a mid-size garden with several larger trees and low plants and shrubs that provide little shade. The only horizontal neighborhood connections are four households connected by modest sidewalks at the far ends of the platform. A bench, chair and trash bin provide a space for rest and viewing, but less than five people used this infrastructure during my period of observation.

Of all the spaces observed, Platform 5 was the least lively. Several design flaws affect this outcome. First, through traffic between Platforms 5 and 6 does not require one to pass through the length of Platform 5, but rather just its short edge. The only time people are forced to pass through the platform is when the escalator is out of service (as it was for my recorded observations) because the staircase going up is located at the far end of the platform. Other horizontal connections from the platform to households are extremely limited. Furthermore, the platform receives high amounts of sun throughout the day and is virtually uninhabitable for longer periods of time. As a result, the outlook point is typically most active during short stops for guided tour groups moving down the hillside.

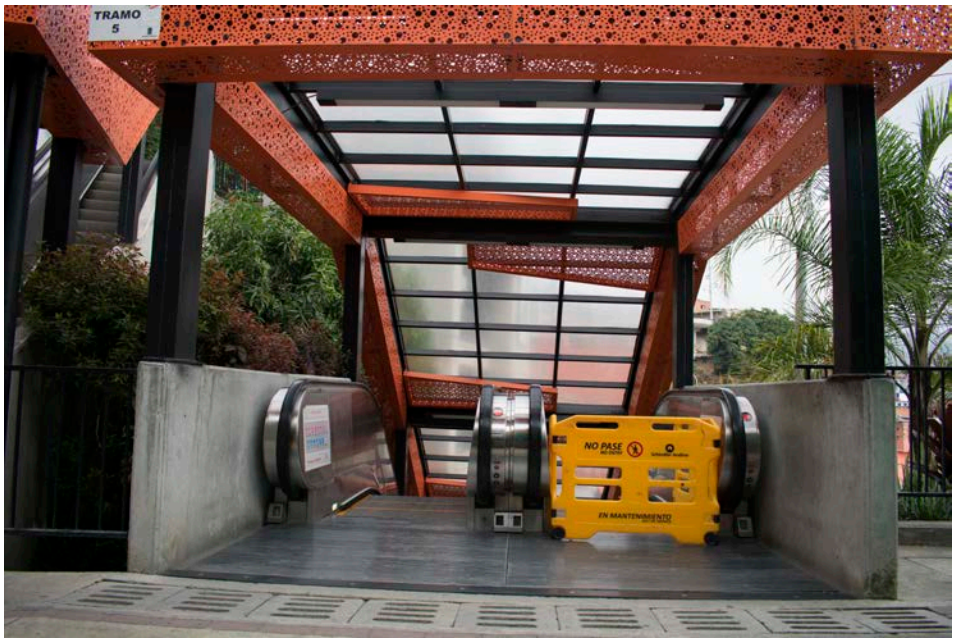

Figure 16: While the system is well-maintained overall, escalator five was out of service for the majority of my field research. Photo by author.

Just a few meters higher, Platform 6 hosts a single home with a juice stand opening directly into the space. More triangular in shape, the platform measures some 6 by 9 by 10 meters, with a long concrete bench lining the retaining wall to the southeast of the platform (directly under the viaduct above). During operating hours, additional seating and tables are provided by the juice stand owner and an extended awning is strung across from the home to the covered roof of the escalators. While the popular juice stand and its charismatic owner keep the platform relatively active when open, the space is dead when the juice stand is closed. The proximity of the up and down escalators on the platform results in quick pass-through traffic by both residents and tourists, but they rarely choose to stop for reasons other than to buy juice.

Figure 17: Platform 6 features a single residential and business frontage, a popular juice stand for residents and tourists alike. Photo by author.

At their upper extent, the public escalators terminate at the mid-hill viaduct, a horizontal, linear pedestrian and motorbike connection. From here, an observation platform, Platform 7, lies at the main entrance to the community building for the public escalators. A security guard sits stationed inside the building, occasionally leaving his post to move about the 5x8 meter rectangular platform. Additionally, the space features a set of several horizontal concrete beams spanning from the community building to a poured concrete wall with built-in bench seating to the east. Along the northeastern edge of the platform, an open railing provides unobstructed views of the western hillsides of San Javier as well as the northern extents of the valley. This “stage-audience” spatial relationship between the observer and the city also serves as a critical threshold where informal social interactions between strangers are common, such as asking others to take

a photo or casually chatting while sitting and resting on the shaded benches (Simões Aelbrecht, 2016).

Figure 18: The sun rises at Platform 7, providing beautiful views of the neighborhood and the surrounding foothills. Photo by author.

However, the vast majority of the activity in this area spills out to other spaces along the viaduct. One important activity is the recurring breakdance performances on Platform 7, which have the ability to create sustained social vibrancy over the long-term due to their influence on the space as another important cultural prop (Simões Aelbrecht, 2016). Additionally, the southern edge of the platform features a vending and seating area protected by some of the neighborhood's only mature shade trees. This edge accumulates

activity throughout the morning and midday, and by early afternoon, hosts dozens of users at any given time. In a sense, Platform 7 and the intersection of the viaduct best capture the spirit of the 'kinetic city' by embracing multiple activities and many social groups simultaneously (Mehrotra, 2009).

Figure 19: By early afternoon, the viaduct is bustling with activities such as break dancing, street vending and neighborhood tours. Photo by author.

The viaduct has two segments currently completed to-date, providing a critical linkage between the neighborhood sectors of Las Independencias I and II. Additional segments have been planned (but not yet financed) with the goal of extending the path across Las Independencias III and into Nuevos Conquistadores. The first phase of the project, crossing the entirety of Las Independencias I, measures approximately 465 linear

meters (0.3 miles) by four meters wide (~13 feet), while the recently completed second phase of the project, traversing roughly one-half of Las Independencias II, measures 310 linear meters (0.2 miles) by four meters wide (~13 feet) (Gutiérrez Guzman, 2016).

In the same spirit as the public escalators, the viaduct not only enhances resident mobility, but also serves as important social infrastructure by creating spaces for casual encounters and gatherings. Unlike the escalators, however, the viaduct does not follow one singular pre-existing pathway, but rather replaces several broken segments which limited the mobility of physically-impaired residents and others whose movement was restricted by violence. Therefore, the viaduct serves not only to socially re-integrate the neighborhoods, but it also physically interconnects them. A local resident explains the importance of this physical connection, stating that before the viaduct, ambulance service could not reach neighbors and residents were unable to access their homes by motorcycle. The viaduct has also strengthened connections with people outside the community, which has greatly improved the self-image and economic well-being of residents who live in Las Independencias I (Hora 13 Noticias, 2017). On the other hand, the more intimate scale of the viaduct prohibits personal vehicular access. A community elder and local vendor contemplates the current social role the viaduct serves, acknowledging that while the addition of vehicles may compromise its character, neighborhood accessibility by cars would (personal communication, August 01, 2017).

Since my field work, Las Independencias II has begun to receive more commissioned street artwork along the viaduct, and as a result, increased tourism and commercial vending. While escalator ambassadors are not present in Las Independencias

II and few police patrols occur along the viaduct, the City of Medellín has placed various "take care" signs in most of the public common spaces. And while limited security or police presence currently exists, the winding and open nature of the viaduct provides many different vantage points from which to observe users.

Figure 20: Signage along the new segment of the viaduct in Las Independencias II attempts to control social behaviors. Photo by author.

Platform demographics and mobilities

My pedestrian observations also allowed me to analyze general mobility trends and demographic characteristics of the users of the escalator platforms. First, it is important to note that despite a higher proportion of females in the city of Medellín (54% of the total population by DANE estimates) (Alcaldía de Medellín, 2006). all but two of the platforms studied were gendered male. These were Platform 6, split evenly 50/50, and

Platform 5 with a female majority of 55%. It follows that public spaces in Medellín, similarly to other Latin American contexts, are generally gendered very masculine. This has profound implications for the design of public spaces, of which more attention will be given in the discussion. Second, the users of each platform generally presented similar age distributions, with the largest group being young adults. Platforms 3, 4 and 6 followed this trend, and to a lesser extent, Platforms 2 and 5, with almost equal counts across all age groups. On the other hand, Platforms 1 and 7 had much higher numbers of adults followed closely by young adults.

Ultimately, this data demonstrates that while most platforms reflect a similar age distribution, a higher than average number of adults appear to frequent the top and bottom of the public escalators. This could be explained, in part, by the presence of adult vendors in both of these spaces, which may slightly skew findings, although this small number of vendors generally caters more to the tourists than to existing (adult) residents. Additionally, the relatively higher connectivity of these two platforms with other paths throughout the neighborhood results in greater cross traffic by working-age adults, who are constantly on the move for work or other errands.

However, when we turn the focus away from the individual and towards overall use we can better understand pedestrian flows throughout the public escalator system. Generally speaking, the total volume of people on each platform decreases moving up from Platform 1 to Platform 5, then drastically increases again on Platforms 6 and 7 moving upwards. My observations revealed a surprising statistic: tourists represented roughly 30% of the overall volume of foot traffic observed along the public escalators

and viaduct. The share of tourists to overall volume of users per platform, however, varied greatly throughout the system. For example, tourists comprised over 40% of the total foot traffic on Platforms 4 and 5, while tourists accounted for 50% of pedestrians on Platform 6. On the other hand, the share of tourists observed on Platforms 1, 2 and 3 were all under 30% of the total.

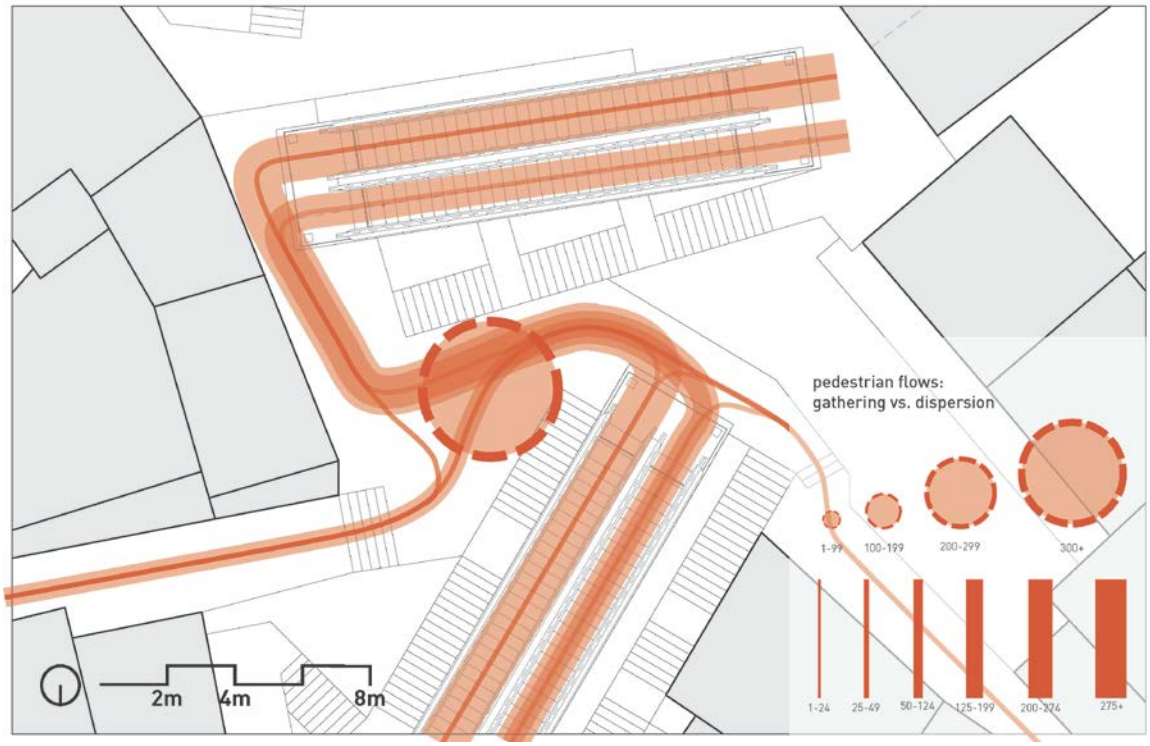

Illustration 9: Pedestrian movement within and through Platform 4 create congestion along the southern edge of the space, creating ample opportunities for informal encounter. Map by author.

One should note, though, that lower total user volume on a given platform tends to skew the tourist's total share in their favor. For instance, while 284 tourists represented 26% of the share of total user volume on Platform 1, tourists represented 50% of the total user volume on Platform 6 with 304 persons. That is to say, tourists generally visit all the

platforms within the system and their total volume fluctuates little from platform to platform. This fact relates closely to the way in which the vast majority of tourists visit the neighborhood: guided tours. Guided tours in the neighborhood begin around 10:30am and occur roughly every four hours, typically beginning at the top of the escalators and finishing at the bottom. The reason for tourists overrepresenting their share of total foot traffic on Platforms 4, 5 and 6 is that these platforms are not as used by neighborhood residents for socialization or gathering. For example, Platform 6 only hosts the juice stand, a popular hangout for Escalator Ambassadors, but also a frequent stop for neighborhood tour groups. Below on Platform 5, tour guides utilize the long, linear and low-traffic space to stop and explain more of the neighborhood history, while enjoying the view from this lower vantage point. On Platform 4, all tour groups take a full stop. Guides present each of the murals on the platform with their group and typically allow a coffee and souvenir shopping break.

Conversely, residents hold more than their proportional share of Platforms 1, 2 and 3. Platform 1 acts as the primary gathering space for neighborhood residents, particularly in the evenings as residents return from work in other parts of the commune or the city. The entrance to the Las Independencias Educational Institution opens onto Platform 2, resulting in neighbors spilling out into the platform after classes, performances, or other community events several times a week. Finally, Platform 3 remains a smaller neighborhood gathering space comprised mostly of nearby residents at various times throughout the day. Local vendors sell food to residents and tourists alike, but few tourists remain on the platform after making their purchases.

In fact, residents pause less than 20% of the time on any platform except for Platform 4 (22%) and Platform 7 (46%). Tourists tend to pause more than residents on all platforms except Platforms 2 and 3 (where they pass through over 90% of the time). Over three-quarters of tourists pause at Platform 7, but only stop about 1/3 of the time or less at any other given platform. Other than Platform 7, tourists tend to pause most on Platform 1 (35%) and Platform 4 (37%). However, there is significantly more cross traffic by residents at the top and bottom of the escalators (Platforms 1 and 7). It follows that the least dynamic social spaces are platforms 2, 5 and 6, since they fuction almost exlusively as spaces of circulation and very rarely host large gatherings. In all, the highest traffic on the public escalators is during the late afternoon into the early evenings, when multiple tours are underway, children are back from school, and adults are arriving home from work. The early morning hours from 6 – 10am are almost exclusively represented by neighborhood residents rushing down the hill to the bus stop or hurrying up the hill to get to their motorcycles to get to work. Midday, however, tourists begin to match the same number of residents, as most residents are away at work or school at this time.

The escalator system is supervised by a variety of community stewards. Formal stewards consist of state-funded security guards (ambassadors) who ensure that rules are adhered to on the escalator system, including that no one is to walk/move on the escalators and that no one should run on the stairs alongside the escalators. These stewards carry the logo of the City on their uniforms and are typically contracted for one-year terms, with the majority coming from the immediate neighborhood and the remainder hailing from nearby areas of the commune. These security guards have strong

rapport with the community members, particularly those living adjacent to the escalator system, and are responsible for the general upkeep of the platforms and escalators, doing early morning cleaning of each platform and wiping down the hand guides of each flight of escalators. In addition, the city has contracted maintenance staff from the community to sweep the stairs, collect trash and to maintain the gardens adjacent to the escalators as well. Other control agents present throughout the escalator system include private security and police officers. While private security is found only at the community building adjacent to the viaduct and Platform 7, I observed police several times on foot patrol on all platforms except for Platform 2 and 4. While generally respected by the local residents, the presence of physical control agents has profound impacts on how people behave in these urban common spaces. The following chapter summarizes these findings by drawing conclusions about the overall successes and shortfalls of the implemented project.

Chapter 6: Research Conclusions

The public escalator system was designed to facilitate greater vertical physical mobility in the sector of Las Independencias I. At the same time, however, this infrastructure erodes the social vibrancy of the stairway, a dynamic social space within contexts of urban informality. Previous studies have acknowledged the important role of stairways in informal settlements as spaces for socialization and commerce (Brillembourg & Klumpner, 2005). In the case of Las Independencias, my research documents a wealth of socially and economically productive uses, including the sale and secure storage of goods for working adults, gathering spaces for teens, and recreational play for children. By supporting only unidirectional movement (up or down) and removing the stairway's potential for users to pause or "assemble," the escalators "disperse" social activity and create a pass-through space by design (Gehl, 2011). This efficient movement of people across the neighborhood also reflects the growing global trend of rampant consumerism, with thousands of tourists passing through this system every month to stop only briefly between platforms to consume goods and cultural artifacts before continuing their descent back towards the Metro and out of the neighborhood (Koolhaas, 2014). While an additional stairway flanks one or both sides of any given segment of the escalators, the use of these stairways is generally reserved solely for residential access for those with house frontages along the escalators.

On the other hand, the EDU also introduced additional public spaces as an integral component of the public escalator system, designing modest platforms or small

squares between each segment of the escalators intended to absorb some of this social and economic activity. The peculiar imposition of this colonial spatial typology in this self-built neighborhood piqued my interest, and therefore, I directed the bulk of my attention to better understanding these spaces in and their role in re-enforcing state goals of exerting social control and institutional influence.

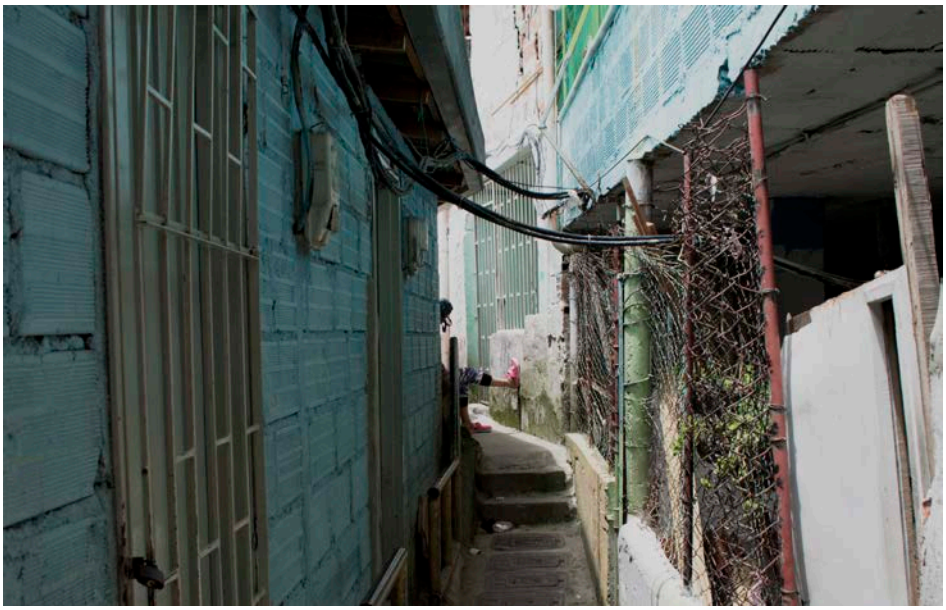

Figure 21: Narrow alleyways remain largely unaltered following the implementation of the public escalators. Photo by author.

Generally speaking, the design and accessibility of the public escalators and platforms is quite skillfully integrated into the neighborhood, minimally impacting the area surrounding the small footprint of the previously existing stairway. As a result, the scale and design of the platforms become more a product of the spatial constraints present rather than a response to socio-cultural factors. For example, each of the platforms coincides with a lateral alleyway, but few material enhancements extend beyond the immediate edges of the escalator system. Improvements along this corridor attract rather

than protect the area from growth and development, leveraging the escalators to facilitate the majority of the sector's informal commercial retail activity (Gouverneur, 2016).

While the escalators utilize quality materials and construction methods, their final design fails to reference or establish any unique community identity (beyond the novelty of the system itself). Blank, poured concrete retaining walls frame the edges and cover the surface of each platform. Residents view these walls as an opportunity to express identity and memory through graffiti and street art, but the City's mandate that designs and messages must pass through a permitting process effectively controls the expression of public culture (Kapferer, 2007). Aside from the vibrant colors bursting from the walls, covered rooftops for each individual segment of the escalators are colored "EDU orange." At each end of the escalators, the two community buildings feature the EDU and City of Medellín logos. Together, this coloration and branding of the system helps to establish and strengthen the state's identity and control in the sector, casting them as a major neighborhood presence via the implementation of physical infrastructure. However, the project is entirely insufficient to advancing other critical community goals, failing to reflect the shifting cultural landscapes of the community (Mehrotra, Shett, & Gupte, 2009).

Finally, the design of the platforms does little to facilitate the creation of a robust public space culture. At its most basic, the small scale of each platform and the pass-through nature of many of these spaces as part of a larger mobility system inhibits the gathering of large amounts of people. Furthermore, the design incorporates few informal places to sit or gather, with only very limited built-in furniture on Platforms 1, 4, 5, 6 and

7. Very few shade trees have been planted and there is little landscaping, resulting in low levels of platform shading during the hot midday hours. In all, this combination of factors discourages assembly or gathering, but as was observed in this study, residents and others still choose to use and inhabit these spaces in different ways in their day-to-day lives.

The ways in which residents and others use these spaces occasionally contradict the City's notions of what uses should occur there. The state initially took a very limited view of the economic potential of these platforms, disallowing informal vending. Like many Colombian cities, there continues to be concerns about informal vending causing significant sidewalk congestion and negative health impacts (Donovan, 2008). For example, Gehl (2011) states that the standard separation of stalls to permit free flows of trade and pedestrian traffic between marketplace vendors is two to three meters (six to nine feet), but most platforms are only three to four meters wide in any given direction. However, community representatives cited the fact that private landowners with existing storefronts would unfairly benefit from the escalators since they had already invested capital. Therefore, they argued that all residents should have the right to sell within these common spaces (neighborhood vendor, personal communication, July 13, 2017). Today, vendors adhere to an informal, community-based code of ethics which holds that any resident can sell their goods on a given platform as long as they are not in direct competition with another vendor on the same platform (neighborhood resident, personal communication, July 16, 2017). As a result of this common understanding, a diverse array of goods are sold throughout the system to tourists and residents alike, with many residents heavily relying on these sales to support their families. Beyond vending, most

of the day there is little other socialization or recreation on the platforms. The presence of roaming escalator ambassadors to enforce walking only on platforms and standing only on escalators limits the potential of these spaces to be used by children and youth for physical activity, with most preferring to use the alleyways or stairways to recreate. The one exception to this rule is the Black & White Dance Crew, who lays out their breakdancing platform to practice and perform for tourists.

This culture of hip hop dance, rap and graffiti has permeated the corridor of the escalators, though it was never conceived of as such. The final design of the public escalator system does little to acknowledge the existing cultural tendencies, embedded community values or unique environmental conditions present in the neighborhood (Gouverneur, 2016). Nowhere is this historic/cultural disconnect more acute than between the third and fourth platforms. Where Platform 3 lies today, two important alleyways crossed at a small storefront which sold essential household goods. This intersection was and continues to be considered by many as the community's social heart (neighborhood resident, personal communication, July 26, 2017). However, the larger scale and the presence of furniture on Platform 4 attempts to shift the social heart of the neighborhood away from this intersection (Platform 3) in favor of a more open and easily monitored space by design.

Another shortcoming of the implemented design strategy relates to the area's historic ecology. Although the neighborhood is classified as a "high-risk, non-recovery zone" due to its extreme slopes and weak soils, the project fails to recuperate any green space and instead makes exclusive use of hardscape to cover environmentally sensitive

lands (Alcaldía de Medellín, 2014). Modest planters and small gardens integrated into the design introduce some greenery, but pale in comparison to the robust private gardens that many households maintain in the neighborhood. In many ways, these “garden keepers” demonstrate the capacity and potential autonomy of local residents to care for their own neighborhood (Gouverneur, 2016).

While the escalators often seem to promote conflicting goals of gathering and mobility, the viaduct seems to more effectively unite these objectives. As a major neighborhood collector with many frontages for homes and businesses, the viaduct receives consistent pedestrian and motorbike traffic, which maintains a base level of activity from the early morning into mid-evening (Gouverneur, 2016). Furthermore, the viaduct’s design better integrates a variety of scales and types of public spaces along the entirety of its course, ranging from small, intimate spaces to sit and chat to playgrounds to outdoor gyms and gardens to larger gathering and meeting spaces. The continuous multipurpose bench seating along its edge allows for informal pausing and gathering, and the flat, linear path provides more space for kids to ride their bicycles, fly kites or play tag. Also, there are no security personnel along the viaduct, which means that the space is governed and regulated entirely by the community users who inhabit it.

Ultimately, the design and implementation of the public escalators and viaduct effectively responded to the historic levels of violence brought about by the proliferation of armed non-state actors vying for territorial control. By disrupting invisible borders and reorganizing spatial territories under the control of the state through these new linear connections and shared community spaces, the design process as well as the construction

and maintenance of these spaces were all conceived as means of promoting shared citizenship and community identity and fostering voluntary civic participation under the direct influence of the state. As one local architect attests, “public space and the civic building [serve as] a platform for encounter between citizens and state policy” (local urban designer, personal communication, August 04, 2017). Upon closer critique, however, the design, material quality and use of these spaces suggest that they are not designed for residents but rather intended to facilitate tourism and state control.

This leads to the question, to what degree did this project disrupt the existing social geographies of control? Or in other words, to what extent did this project improve security compared to the urban warfare and subsequent military police presence in the past? The design of wide open spaces with little room to gather pushes illicit activities away from the escalator and viaduct corridors. In this way, the public escalators did not eradicate criminal activity but rather displaced it to hidden geographies such as distant alleyways, or into the domestic sphere (Buckingham & Kulcur, 2009; Low, 1996). One resident and escalator ambassador explained that the escalators are considered a neighborhood “truce” zone where drugs and crime are not to occur (escalator ambassador, personal communication, July 27, 2017). Yet unbeknownst to me, during my field research a household adjacent to the escalators was caught attempting to sequester a utility worker for ransom (escalator ambassador, personal communication, July 27, 2017). This shifting landscape of crime into the domestic sphere disproportionately impacts women and is a significant finding that must be addressed moving forward if these projects truly seek to enhance the livelihoods of all neighborhood residents. These

gendered impacts paired with weak efforts to recuperate ecosystem services underscore the need for greater flexibility and local autonomy in urban design interventions and highlight the inherent challenges associated with simultaneously trying to advance socio-economic equity and impose social control.

Chapter 7: Discussion

Reflections on My Role as a Foreign Researcher

As a foreign-born researcher, specifically a white, non-Hispanic cisgender male, I enjoyed an extremely high level of privilege during my thesis field work, particularly during my interactions with government officials and other professional practitioners .Upon arrival in Medellín, I was graciously received by community organizations, residents, government officials and private architects and designers and was provided direct, highly individualized attention throughout my thesis research field work. Key project informants and stakeholders made themselves available early on for calls and meetings and continued to remain engaged throughout the process, sharing all publicly-available datasets which I requested. In the community, I faced slightly more tensions. While the great majority of residents and community organizations were very welcoming and gracious, offering meals at their homes, afternoon coffees, or evening strolls through the neighborhood, I did encounter several residents who were skeptical or critical of my presence in the neighborhood. While I never experienced any physical altercations, two young males were upfront in their distaste of my American citizenship. They viewed the U.S. as a major contributor to the neighborhood's recent military interventions as part of Colombia's "War on Drugs," which resulted in high levels of violence and the death of many loved ones. While the confrontation could not be easily resolved, we talked and agreed to give each other space. Another Afro-Colombian community leader also expressed initial skepticism about my presence as an American-born white male in the

community. However, within the first two weeks of arrival, we were able to sit down one-on-one to talk about each of our own personal backgrounds, after which she graciously reviewed and critiqued my research materials and methodologies. This transparency reassured her of my role in the community, and as a result, she later became a key research informant.

REFLECTIONS ON THE RESEARCH PROCESS AND METHODS

I employed a "quasi" design ethnography research methodology in my field research. The critical design ethnography methodology first requires a "thick description" of the local context prior to engaging in critical participatory design exercises (Barab, Thomas, Dodge, Square, & Newell, 2004). While the process of collecting observations, resident interviews and building relationships for my thesis research resulted in a robust dataset of physical and social characteristics of spaces, this process consumed the entirety of my allotted time to conduct field work. As a result, I was unable to move beyond this documentation phase to undertake participatory design exercises with community members, thereby only achieving a "quasi" design ethnography methodology.

If I had more time to execute the full methodology, I would have engaged in participatory design workshops with community residents focused on cognitive mapping exercises to document their lived experiences along the public escalators. This information could have been used to produce a collaborative design intervention in the neighborhood which would have built on the community's existing assets, including its social networks and spirit of economic entrepreneurialism. Ultimately, this design

proposal could have been implemented and subsequently updated to respond to distinct community needs over time. Furthermore, this would have set a precedent for other communities in the city to also employ similar processes to create incremental opportunities for neighborhood residents. What was gained, however, was crucial data which helped to evaluate the occupation of the public escalators in recent years and to offer critiques and some (preliminary) design recommendations for similar city projects implemented moving forward.

Ultimately, the methods used to collect datasets for the public escalators were designed to be as unobtrusive as possible. Given the brief and one-time nature of my research, I tried to be engage as much as possible with community residents while also manage individual expectations about my potential contributions to the neighborhood. Due to my prolonged presence in the neighborhood, a particular ethical stance I took was to greatly limit the number of photos that I took of local residents, asking for consent to take photos of individuals only when I desired to document a specific activity or behavior. Given the highly ethnographic nature of my research, one may perceive a potential incongruity between what appears to be a robust social dataset and a dearth of humans in many of the site photos. In retrospect, I feel that I could have been more aggressive in asking individuals if they were comfortable having their photo taken. However, at the time, I did not want to unintentionally coerce someone into consent given my relative privilege in the community. Ultimately, I believe that my decision allowed residents to feel comfortable in their local public spaces without feeling like they were being excessively watched or recorded. At the beginning of my observations, many

residents approached me out of curiosity to ask what I was doing, and upon sharing my notes and explaining the project, most residents just continued on their way and wished me luck.

LIMITATIONS OF THE RESEARCH AND POTENTIAL FUTURE STUDIES

As with any academic research study, there are always other questions that I would have liked to have explored or included in this research scope. However, these topics provide an opportunity for me and other scholars to pursue future academic research studies.

While the case study methodology produced a robust picture of the neighborhood and its urban common spaces at the time of observation and documentation, the brief and one-time nature of the study limits the ability to compare findings to previous conditions along the stairway or to accurately document change over time. While I gained a picture of the previous character of the neighborhood through historic images and residents' anecdotes, I'm limited in my ability to draw broader conclusions about community change. Employing a longitudinal research methodology could better capture change over time, thus fostering planning and urban design interventions that are based on a better understanding of the evolution of community histories.

Furthermore, documentation of current physical and social context in Las Independencias II and III could provide a "before" condition, given the similar topographical conditions and limited amount of physical interventions present in these neighborhoods. Another important factor to further document is the growing influence of

tourism in Las Independencias I while also more intentionally considering how to best prepare other neighborhood sectors for increased levels of tourism and establishing proactive measures to protect local community interests. Finally, additional studies should document existing conditions of the physical environment including surface hydrology, soil quality and vegetation. A critical environmental study could help inform the recuperation of essential environmental aspects in the region, since the state classifies Las Independencias as a "high-risk, non-recoverable" zone due to its environmental vulnerability and poor housing construction quality (Alcaldía de Medellín, 2014).

Figure 22: Until recently, Las Independencias II has experienced few physical alterations in its built form by the City. Photo by author.

CONTRIBUTIONS TO THE ACADEMIC LITERATURE

Given the heavily researched nature of recent planning and urbanism projects executed in Medellín, I had some initial hesitation about conducting my thesis research in the city. But upon closer analysis of the existing literature, I found that there was a critical gap between two relevant bodies of knowledge. First, there is a wealth of sociological and anthropological studies of Medellín neighborhoods, particularly focused on questions of violence and security as well as social and economic mobilities. Second, many architectural and design publications and academic planning articles cite particular projects or policies in enhancing social equity outcomes in the city from a more removed, less critical stance. However, few, if any, studies combine ethnographic research methods with critical perspectives on the role of planning and urbanism for specific case studies.

In this way, this thesis adds nuance and local community context to existing academic work such as that by Sotomayor (2015) and Berney (2011), who both discuss the paradoxical relationship between social urbanism's goals of promoting social equity while also simultaneously exerting social control; Ortiz (2012) who articulates the concept of "critical spatial planning" as a Colombian planning policy tool by which to unlock new market potentials in the urban peripheries; Moncada (2016) who connects levels of urban violence at the city-scale to discrete political paradigms over Medellín's recent decades; and Stienen's research (2009), which examines the role of architecture and design in promoting a sense of shared Colombian cultural identity and civility through an in-depth analysis of Medellín's new mass transit system and recently renovated downtown public spaces.

Additionally, this thesis closely reflects Low's ethnographic research in Costa Rica (1996) while documenting a new Latin American geography, a hybrid urban landscape with a blend of formally planned urban common spaces as well as informally generated spaces. Marked by their distinct "in-betweenness," my thesis documents these hybrid or 'fourth spaces' within the unique context of urban informality through this case study (Simões Aelbrecht, 2016). Furthermore, this hybridization clearly articulates Lutzoni's formal-informal continuum (2016) and documents the "informal knowledge and microprocesses [traditionally] neglected by city design" which can be leveraged in future urban design interventions to inform action.

ACADEMIC STANCE ON THE COLOMBIAN MODEL OF URBANISM

The Colombian paradigm on public space has merits worth acknowledging, but also has embedded values that should be assessed in order to most effectively promote the formation of public spaces that are accessible and inclusive to all residents. First, there are unanswered questions about who is considered a proper citizen and who determines the characteristics which define a proper citizen. The patriarchal relationship between the state and its citizens, whereby the government sets the norms and standards which all must adhere to, must be challenged by citizens and dismantled. Second, planners and designers need to be more conscious of how their views of citizenship and civility are enforced (or not) in public spaces. Passive forms of social control such as non-inclusive design, behavioral signage and CCTV camera surveillance versus active forms of control such as security guards or police presence all must balance the public

interest for safety, while also avoiding the diminishment of one's ability to access or inhabit public space. With improved public safety in recent years, Colombia can finally begin to form a sense of shared cultural identity, and public space will be crucial to achieving this end. However, the state must be cautious to not advocate for policies and behaviors which exclude large swaths of the population and actively deteriorate social equity.

In this way, the conceptual underpinnings of social urbanism in Medellín root themselves in socialist-inspired policies and investment strategies whereby disproportionately large shares of discretionary funding were channeled into historically marginalized communities to compensate for years of disinvestment. However, as more time passes following the implementation of these projects, we begin to witness the slow erosion of these policies and a shift back to more neoliberal economic tendencies through the articulation of pedagogical urbanism. In this planning paradigm, physical infrastructure continues to be financed by the state, but with significant disinvestment in operational funding for social programming. Furthermore, state-led creation of public spaces to promote shared citizenship and civility serves to exert social control through the rearrangement of socio-spatial relationships. At the same time, the state circumvents more difficult topics such as the long-term housing strategy for the city, which would require political continuity across several mayoral administrations.

That is to say, the design interventions associated with the public escalators discussed in this thesis are both thoughtful and pragmatic. The project attempts to respond to resident needs for enhanced mobility and desires for safety and security.

Furthermore, the project skillfully operates within the reality of the site constraints, retrofitting a tight, winding staircase and removing as few households as possible to implement the project successfully. The extensive and highly iterative nature of community participation as documented during the planning process for the public escalators demonstrates a clear value on behalf of the state to meaningfully engage residents in the articulation of their own visions of their neighborhood's future. At the same time, however, a certain rigidity by planners to adhere to the pre-established process perpetuates the formation of spaces which may (intentionally or unintentionally) exclude certain actors from participating. By elevating the role of local knowledge in the planning and design process to the same level as expert knowledge, deeper and more meaningful community engagement can begin to occur and more innovative and integrated planning solutions can be identified.

APPLYING LESSONS LEARNED TO PROFESSIONAL URBAN DESIGN AND PLANNING PRACTICE

As demonstrated in the case study of the public escalators, there is great potential for physical infrastructure to serve multiple vital social, economic and environmental functions. The public escalators and viaduct are first and foremost the combination of a vertical and horizontal mobility projects for local residents, but also provide spaces for residents to recreate, sell goods, socialize and gather. With the passage of time, it is important to note the incremental evolution of these systems and the inevitability of change. By acknowledging the potential of a single infrastructural system's ability to flex and adapt to changing socio-cultural influences and to absorb physical modifications via

deterioration and subsequent improvements, these investments can have even broader impacts on residents' quality of life.

In a similar way, explicitly acknowledging the role of local histories and expertise to inform and shape built interventions is of critical importance. The deeply-embedded underlying social networks of self-built communities cannot possibly be understood at first glance by external planners and designers, necessitating greater valuation of local knowledge in the planning and design process. In this case, the disruption of invisible borders to improve physical security for residents may also disrupt the community's positive social dynamics and networks of interaction, as evidenced by the disconnect between Platforms 3 and 4 in the public escalator system.

In conclusion, this case study demonstrates the inherent challenges of working in contexts of urban informality, especially in geographically and economically marginalized communities with high rates of urban violence. While the neighborhood today enjoys a unique series of urban common spaces marked by high levels of physical security, underlying social, economic and environmental challenges remain. The physical design and active surveillance of the public escalators promote certain social and economic activities while inhibiting others. At the urban scale, these new infrastructures have been at least somewhat successful in disrupting criminal networks, though other factors such as militarization, increased social programming and more frequent policing are also certain to have influenced these outcomes. Furthermore, the prevalence of non-violent crime remains largely unchanged, with the geographies of crime shifting to the semi-private or domestic spheres. For other cities facing these issues of violence, it is

important to be realistic about what can be controlled and what cannot. It follows that progressive planning and urban design efforts in contexts of urban informality and extreme violence must seek to address the root causes of socio-economic problems, rather than merely attempt to disrupt the existing geographies of control. Planning and designing new urban infrastructure has the potential to respond to many of these concerns by maintaining flexibility and adaptability over time. By allowing incremental growth and change rooted in local culture and identity, we can conceive of a form of urbanism which can promote physical security and equity without the imposition of social control.

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